

L Number	Hits	Search Text	DB	Time stamp
-	1	US20020091998A1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB USPAT;	2003/08/04 09:25
-	15	(("5659752" "5228131" "5600811" "4447875" "4502118" "4782463" "6092036" "4382279" "5287490" "6192368" "6505137" "6093216" "5884029" "5857104" "5978586" "6044381" "6052525" "6101510" "6141664" "6212529" "6223187" "6212529" "6223187" "6253193" "6363488" "6389402" "6427140" "6141791" "4257110" "5522053" "6311260" "6442533" "5860154" "6026234" "6195709" "6351844" "6397379" "5737593" "5878413" "5878412" "6202173" "6230198" "6253373" "5485618" "4443865" "5819097" "5881290" "6012138" "6021275" "4901225") .pn.) and 717/\$.ccls.	US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/31 15:24

-	94	("5659752" "5228131" "5600811" "4447875" "4502118" "4782463" "6092036" "4382279" "5287490" "6192368" "6505137" "6093216" "5884029" "5857104" "5978586" "6044381" "6052525" "6101510" "6141664" "6212529" "6223187" "6212529" "6223187" "6253193" "6363488" "6389402" "6427140" "6141791" "4257110" "5522053" "6311260" "6442533" "5860154" "6026234" "6195709" "6351844" "6397379" "5737593" "5878413" "5878412" "6202173" "6230198" "6253373" "5485618" "4443865" "5819097" "5881290" "6012138" "6021275" "4901225").pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/31 14:48
-	146	717/136.cccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/31 15:25
-	164	717/114.cccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/31 15:25
-	150	717/158.cccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/31 15:30
-	0	tracking with loop\$1 with count\$1 with automatically	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/31 15:30

-	69	tracking with loop\$1 with count\$1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/31 15:44
-	0	SNOLBOL4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/31 15:44
-	2	associat\$3 with variable\$1 with trace with data	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/31 15:53
-	56	associat\$3 with variable\$1 with trace	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/07/31 15:53
-	0	collect\$3 with trace with data with operand\$1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/08/04 11:20
-	188	717/128.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/08/04 11:21
-	26	717/128.ccls. and (history with (data or information))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2003/08/04 11:21

File 9:Business & Industry(R) Jul/1994-2003/Jul 31
(c) 2003 Resp. DB Svcs.
File 16:Gale Group PROMT(R) 1990-2003/Aug 04
(c) 2003 The Gale Group
File 47:Gale Group Magazine DB(TM) 1959-2003/Jul 25
(c) 2003 The Gale group
File 148:Gale Group Trade & Industry DB 1976-2003/Aug 04
(c) 2003 The Gale Group
File 160:Gale Group PROMT(R) 1972-1989
(c) 1999 The Gale Group
File 275:Gale Group Computer DB(TM) 1983-2003/Aug 04
(c) 2003 The Gale Group
File 621:Gale Group New Prod.Annou.(R) 1985-2003/Aug 04
(c) 2003 The Gale Group
File 636:Gale Group Newsletter DB(TM) 1987-2003/Aug 04
(c) 2003 The Gale Group
? ds

Set Items Description
S1 3721669 HISTORY OR HISTORIES OR HISTORICAL OR TRACE? ? OR TRACING?
OR PROFIL??? ?
S2 13806 CHRONOLOG??? ? OR CHRONOLOGUING
S3 282209 LOG OR LOGS
S4 144774 LOGGED OR LOGGING
S5 401900 S1:S4 (3N) (DATA OR INFORMATION OR RECORD? ?)
S6 11510162 APP OR APPS OR APPLICATION? ? OR PROGRAM? ? OR PROGRAMMING
OR PROGRAMME OR PROGRAMMES OR CODE OR CODES OR SOFTWARE OR SO-
FT()WARE? ? OR SOURCECODE?
S7 104370 OBJECTCODE? OR CODING? ? OR BYTECODE?
S8 748568 S6:S7(5N) (ANALYS? OR ANALYZ? OR ANALYT? OR REVIEW? OR EVAL-
UAT? OR INSPECT???? ? OR ASSESS????? ? OR EXAMIN????? ? OR A-
PPRAIS?)
S9 492523 S6:S7(5N) (MONITOR? OR TRACK??? ? OR SCREEN??? ? OR CHECK???
? OR CHEQU??? ? OR DIAGNOS?)
S10 33193 S6:S7(5N) (AUDIT OR AUDITS OR AUDITED OR AUDITING OR SCRUTI-
N????? ?)
S11 56582 S6:S7(5N) (SCAN OR SCANS OR SCANNED OR SCANNING)
S12 445642 S1:S4 (3N) (EXECUT? OR PERFORM? OR RUN OR RUNS OR RUNNING)
S13 780476 S6:S7(3N) (EXECUT? OR PERFORM? OR RUN OR RUNS OR RUNNING)
S14 3175408 QUANTIF? OR CHRONOLOGICAL? OR RETRIEV? OR QUERY? OR QUERIE?
? OR REQUEST? OR SEARCH? OR QUANTITAT?
S15 7364 S5(S)S8:S11
S16 871 S15(S)S12:S13
S17 109 S16(S) (S14 OR STATISTICAL)
S18 70 S16(S)S14
S19 45 S16(S)STATISTICAL
S20 109 S18:S19
S21 13 S20/2001:2003
S22 96 S20 NOT S21
S23 73 RD (unique items)
? t23/3,k/2,14

23/3,K/2 (Item 2 from file: 9)
DIALOG(R)File 9:Business & Industry(R)
(c) 2003 Resp. DB Svcs. All rts. reserv.

2817688 Supplier Number: 02817688 (USE FORMAT 7 OR 9 FOR FULLTEXT)
Products: Grayson Wireless
(The Interpreter Network Analysis Software solution has been introduced by
Grayson Wireless)
RCR Radio Communications Report, v 19, p 52

May 29, 2000
DOCUMENT TYPE: Journal ISSN: 0744-0618 (United States)
LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 118

(USE FORMAT 7 OR 9 FOR FULLTEXT)

TEXT:

Grayson Wireless released the Interpreter Network **Analysis Software** solution, a wireless network tool that automatically and instantaneously analyzes network data, diagnoses common problems...

...used during different phases of network deployment, from pre-launch to expansion. To ease problem **analysis** and evaluate **performance**, the **software** solution integrates multidevice **data** and combines multiple **log** files to examine large areas simultaneously, the company noted. The interpreter then displays raw air-interface messaging, chart and histogram views of data sets and **statistical** analysis as well as allows flexibility for plotting and printing by incorporating industry-standard mapping...

23/3,K/14 (Item 11 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2003 The Gale Group. All rts. reserv.

05557142 Supplier Number: 48419775 (USE FORMAT 7 FOR FULLTEXT)
Visual Basic Add-Ons Boost Performance -- Third-Party Products Help Developers Create Higher-Quality Code In Less Time
Feibus, Andy
InformationWeek, p8
April 13, 1998
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Tabloid; General Trade
Word Count: 1883

... speed of the VB built-in routines called from within the routine. For more extensive **application performance monitoring** features, which are required for intelligent application optimization, you'll want to spring for either NuMega's TrueTime-part of DevPartner-or Rational's Visual **Quantify**. These are hierarchical **performance profiling** tools that **record** the performance of a routine in relationship to the other routines it calls.

Without this...
? t23/3,k/32

23/3,K/32 (Item 5 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c) 2003 The Gale Group. All rts. reserv.

10078230 SUPPLIER NUMBER: 20415417 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Tool tracks application performance.(Landmark Systems PerformanceWorks SmartWatch) (Product Announcement)
Dryden, Patrick
Computerworld, v32, n10, p49(1)
March 9, 1998
DOCUMENT TYPE: Product Announcement ISSN: 0010-4841 LANGUAGE:
English RECORD TYPE: Fulltext
WORD COUNT: 632 LINE COUNT: 00054

The tool, called PerformanceWorks SmartWatch, promises an easy way to

track the performance of any application with a Windows NT or Windows 95 front end. A small agent measures the time between the user's request and the resulting screen update, logging the information locally for retrieval or sending it to a central console.

Beta testers said they require such capability to...
? t23/3,k/34,37,39,42-43,48

23/3,K/34 (Item 7 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

09318337 SUPPLIER NUMBER: 19166947 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Power conditioning and protection.(Electrical Products Yearbook)
EC&M Electrical Construction & Maintenance, v95, n12, p105(4)
Nov 15, 1996
ISSN: 0013-4260 LANGUAGE: English RECORD TYPE: Fulltext; Abstract
WORD COUNT: 2781 LINE COUNT: 00233

... to one small section, which you can easily replace.
Today's UPSs can shut down running applications automatically in a predetermined orderly manner as the limit of battery charge approaches. They have remote-control, event-logging, data-logging, self-test, battery management, query-answering, power analysis, and graphical display features. UPS software has kept up with advances in computer operating systems. Recent feature improvements have been dramatic...

23/3,K/37 (Item 10 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

08138752 SUPPLIER NUMBER: 17430115 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Mercury Interactive Launches New Product Line for Middleware.
Business Wire, p9181095
Sep 18, 1995
LANGUAGE: English RECORD TYPE: Fulltext
WORD COUNT: 650 LINE COUNT: 00072

... at an affordable price."

Key features:

Analyzes data access. Data access activity such as connections, query executions, errors, return data and parameters are traced and captured in real time as the application executes. For quick and easy analysis, the application's SQL(dbLib and OCI), ODBC and Jet database function calls are collected and logged...

23/3,K/39 (Item 12 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2003 The Gale Group. All rts. reserv.

08009481 SUPPLIER NUMBER: 16723018 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Remedy takes wraps off help-desk add-ons. (Remedy Corp's Flashboards help desk software and ARWeb Internet connectivity software)(Product Announcement)
Davis, Beth
CommunicationsWeek, n546, p60(1)
March 6, 1995
DOCUMENT TYPE: Product Announcement ISSN: 0746-8121 LANGUAGE:
English RECORD TYPE: Fulltext; Abstract

WORD COUNT: 425 LINE COUNT: 00039

... of service for their help-desk and support organizations.

Flashboards graphically presents real-time and historical process and performance data gathered from Action Request System, Remedy's help-desk software. The new application can also be used to monitor the Action Request System's performance, the Mountain View, Calif., company said.

'Flashboards is definitely an interesting and...

23/3,K/42 (Item 15 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
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07286090 SUPPLIER NUMBER: 15514079 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Chipcom plans network management software line for Unix, Windows hubs.

(three new network packages, plus integration of an HP network package with Chipcom products) (Brief Article) (Product Announcement)

Wallace, Bob

InfoWorld, v16, n24, p8(1)

June 13, 1994

DOCUMENT TYPE: Product Announcement ISSN: 0199-6649

LANGUAGE:

ENGLISH RECORD TYPE: FULLTEXT

WORD COUNT: 341 LINE COUNT: 00029

... with Hewlett-Packard Co.'s OpenView platform.

* LANsentry, Version 1.0 for Unix includes two applications that use remote monitoring (RMON) information. Statistical Analyzer lets network managers review real-time and historical performance data. Packet Decoder provides data that helps troubleshoot problems.

* LANconnect, developed with NetLabs Inc., provides network...

23/3,K/43 (Item 16 from file: 148)

DIALOG(R)File 148:Gale Group Trade & Industry DB
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06508518 SUPPLIER NUMBER: 14378115 (USE FORMAT 7 OR 9 FOR FULL TEXT)

Dying dinosaurs or future facilitators? (open computer systems)

Tinham, Brian

Control and Instrumentation, v25, n5, p33(4)

May, 1993

ISSN: 0010-8022 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT

WORD COUNT: 3882 LINE COUNT: 00306

... system with the introduction of Release 4 on TDC 3000. This is its on-line statistical process analysis and batch history data collection software package which runs on a VAX/VMS computer integrated with TDC 3000. Main features include better error correction systems, data access and control charts. Incidentally, a Quality Engineering Graphics option allows event history statistical graphics to be shown on DEC VT300 terminals as well as |U.sup.X

S...

23/3,K/48 (Item 1 from file: 160)

DIALOG(R)File 160:Gale Group PROMT(R)
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02305749

HP ANNOUNCES CD ROM-BASED PERFORMANCE-MANAGEMENT TOOL FOR UNIX ENVIRONMENT
News Release September 5, 1989 p. 1

... host collector and the PC-based user-interface. The collector resides on the host, and **records** system activity in **log** files. The user can specify threshold levels related to critical system resources. These thresholds in turn determine when data on the system is **logged**. The **data** then is reduced and compacted, allowing several months of activity to be stored on disc...

... data can be viewed graphically or in spreadsheet format, and files are exportable to other **statistical** -analysis packages. HP LaserRX/UX **performance - analyzer** **software** **runs** on an Intel80286 or 80386-based HP Vectra PC or IBM AT PC incorporating a...

? t23/3,k/50-51,53-54

23/3,K/50 (Item 3 from file: 160)
DIALOG(R)File 160:Gale Group PROMT(R)
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01820367

PROMOD INTRODUCES OPTION FOR AUTOMATIC REQUIREMENTS TRACKING FROM ANALYSIS THROUGH DESIGN AT CASEXPO
News Release October 20, 1987 p. 1

... introduced an option for its ProMod family of computer-aided software engineering and computer-aided **programming** (CASE/CAP) products that automatically **tracks** requirements and other user-defined items throughout the development process, here at CASExpo (Booth #44...).

...for providing visibility and control of critical details and milestones. In use, ProMod/TMS automatically **searches** through the development **data**, **traces** identified items and prepares reports as a natural part of the information collecting activity **performed** by ProMod. Items **traced** by ProMod/TMS can be any user-defined parameters, such as requirements, test plan references...

23/3,K/51 (Item 4 from file: 160)
DIALOG(R)File 160:Gale Group PROMT(R)
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01704541

ALLEN-BRADLEY ANNOUNCES STATISTICAL PROCESS CONTROL SOFTWARE -- PERFORMS CELL-LEVEL STATISTICAL ANALYSIS FOR VISTA 2000 USERS.
NEWS RELEASE June 5, 1987 p. 11

Allen-Bradley has introduced Vista 2000 **Statistical Process Control**, a **software** package that **performs** **statistical analysis** on both run-time and historical data. As with other Vista 2000 application software, **Statistical Process Control** provides fill-in-the-blanks menus and forms that make it easy to tailor this software to a particular application. **Statistical Process Control** **software** : + Provides **Statistical Alarms**, which **monitor** live data for the occurrence of **statistical** alarm conditions such as runs, trends, and single-point alarms, and, + Provides **Statistical Tags**, which perform **statistical** calculations on data before it is collected into logs. Either automatically or on demand, Vista 2000 **Statistical Process Control** provides four commonly used **statistical** charts: + histograms + pareto charts + scatter

plots + stratified scatter plots Control charts created with the **statistical** Process Control software show users the soundness of a process by helping them determine where and when a process is out of **statistical** control. **Statistical** Process Control uses **historical** data to create, automatically or upon command, the following control charts: + X-R Charts + pn Charts + p Charts + u Charts + c Charts **Statistical** Process Control's built-in math functions calculate variance, range, standard deviation, and averages from data **monitored** by Vista 2000 Base Control **Software** and **logged** by **Historical** Data Management Software. ...

23/3,K/53 (Item 6 from file: 160)
DIALOG(R)File 160:Gale Group PROMT(R)
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01617486
EMCOM CORPORATION EXPANDS NCS70 SERIES NETWORK CONTROL SYSTEM PERFORMANCE DATABASE CAPABILITIES .
NEWS RELEASE March 30, 1987 p. 11

Data network managers now have a new option for the storage and **retrieval** of critical network performance monitoring information with the release of a powerful enhancement to the...

... at Interface '87 here. New options include the availability of a stand-alone system for **historical** **data** collection. The NCS70 Standalone Database System provides an alternative to storage and **retrieval** of the network performance database accumulated by EMCOM's popular network management and control system. **Historical** **performance** statistics can now be maintained off-line, and totally independent of the host computer system...

... plotter, and color line printer. Report generation is provided by EMCOM's powerful Network Communications **Performance Analyzer** (NCPA) **software** package. NCPA complements the NCS70 real-time data collection process by providing exceptional databasing and...

23/3,K/54 (Item 7 from file: 160)
DIALOG(R)File 160:Gale Group PROMT(R)
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01569593
ACT ANNOUNCES SYMBOLIC DEBUGGING SYSTEM FOR MIL-STD-1750 COMPUTERS.
NEWS RELEASE November 14, 1986 p. 11

... of the Debugger. Multiple windows permit the display of user commands, source program statements, breakpoint **history**, **trace history**, **data display**, **statistical** display, and disassembled object code. Facilities are available to control **program execution**, **examine /modify** the **program** and (simulated) machine state, and **trace execution**. Script facilities are available for debugger and simulator command execution in both batch and interactive...
? t23/3,k/56,59-60,73

23/3,K/56 (Item 2 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
(c) 2003 The Gale Group. All rts. reserv.

02176067 SUPPLIER NUMBER: 20527055 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Integrating enterprise applications. (Technology Information) (Cover Story)
Linthicum, David S.
DBMS, v11, n3, p38(6)
March, 1998
DOCUMENT TYPE: Cover Story ISSN: 1041-5173 LANGUAGE: English
RECORD TYPE: Fulltext; Abstract
WORD COUNT: 4248 LINE COUNT: 00348

... trends.

Luminate for R/3 is an example of a service-reporting tool for packaged **applications**. Luminate provides **performance** and availability **analysis** and stores **historical data** for **statistical analysis**. This tool can report R/3 up time, response time, and transaction volume. Using ...

23/3,K/59 (Item 5 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
(c) 2003 The Gale Group. All rts. reserv.

01692042 SUPPLIER NUMBER: 15579421 (USE FORMAT 7 OR 9 FOR FULL TEXT)
ODBC Sniffer and SQL Sniffer. (Blue Lagoon Software's performance analysis/diagnostic software) (Software Review) (Evaluation)
North, Ken
DBMS, v7, n9, p28(3)
August, 1994
DOCUMENT TYPE: Evaluation ISSN: 1041-5173 LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 1424 LINE COUNT: 00108

ABSTRACT: Blue Lagoon Software's \$295 ODBC Sniffer and \$295 SQL Sniffer are good **performance analysis / diagnostic software** packages, but ODBC Sniffer experienced some stack errors when tracing ObjectView's Visual **Query** application. ODBC Sniffer traces ODBC function calls, while SQL Sniffer monitors the operation of SQL...

...end-user applications such as Word or Lotus 1-2-3. ODBC Sniffer includes timing **data** that other **trace** tools leave out and gives users the ability to customize their trace operations. The output...) ↑

...smaller than the ODBC output file because the software does not record the result-set **information** into **trace logs**.

23/3,K/60 (Item 6 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01669460 SUPPLIER NUMBER: 15037347 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Speed generator: Pure Software's Quantify isolates performance bottlenecks overlooked by other profilers. (the Quantify program measures and analyzes UNIX program performance) (Software Review) (Evaluation)
Pare, Dave; Lee, Jonathan
UNIX Review, v12, n3, p67(3)
March, 1994
DOCUMENT TYPE: Evaluation ISSN: 0742-3136 LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 1681 LINE COUNT: 00132

ABSTRACT: Pure Software's Quantify program measures and analyzes the performance of UNIX programs, and while it collects profiling information more slowly than other such tools, its analysis interface is well designed, which makes it easy to identify an application's performance characteristics. Two large code bases were analyzed by the program: a 20,000-line curses user interface written in C, and a 50,000-line...

...tests were conducted on a 50-MHz SPARCstation 2 clone running SunOS 4.1.3. Quantify's call-graph panel provides a graphical, big-picture call tree of the application that facilitates the analysis process, and its annotated source panel makes it easy to view the application's source code. The program is easy to install and learn; it provides excellent profiling information within a modern and helpful user interface. Quantify costs \$1,198 for a personal license and \$250 per year for support.

TEXT:

...tools have come a long way, and the field of performance analysis is no exception. Quantify, by Pure Software, is one of the most recent additions to the programmer's productivity toolkit. Programmers can use Quantify to measure and then analyze a program's performance. Although Quantify collects profiling information more slowly than standard profiling tools, the analysis interface is well engineered and provides a truly superior way of identifying the performance characteristics of an application.

23/3,K/73 (Item 6 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
(c) 2003 The Gale Group. All rts. reserv.

01853058 Supplier Number: 43172977 (USE FORMAT 7 FOR FULLTEXT)
MARKET DATA & NEWS: OPENING WINDOWS: BRIDGE FOCUSES ON GUIS FOR NEW GENERATION OF DATA PLATFORMS
Investment Management Technology, v1, n22, pN/A
July 24, 1992
Language: English Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 857

... data and analytics services across a local area network running TCP/IP.

But Bridge's historical data and analytical applications drawing upon the vendors historical database are run from Bridge's data center in St. Louis. A user requesting a given historical data element or analytic does so via an interactive link between the OS/2-based servers...
?

File 347:JAPIO Oct 1976-2003/Mar(Updated 030703)

(c) 2003 JPO & JAPIO

File 350:Derwent WPIX 1963-2003/UD,UM &UP=200349

(c) 2003 Thomson Derwent

? ds

Set	Items	Description
S1	256054	HISTORY OR HISTORIES OR HISTORICAL OR TRACE? ? OR TRACING? OR PROFIL???
S2	63	CHRONOLOG??? ? OR CHRONOLOGUING
S3	34825	LOG OR LOGS
S4	9596	LOGGED OR LOGGING
S5	21901	S1:S4(3N) (DATA OR INFORMATION OR RECORD? ?)
S6	1370534	APP OR APPS OR APPLICATION? ? OR PROGRAM? ? OR PROGRAMMING OR PROGRAMME OR PROGRAMMES OR CODE OR CODES OR SOFTWARE OR SO- FT()WARE? ? OR SOURCECODE?
S7	64073	OBJECTCODE? OR CODING? ? OR BYTECODE?
S8	20909	S6:S7(5N) (ANALYS? OR ANALYZ? OR ANALYT? OR REVIEW? OR EVAL- UAT? OR INSPECT???? ? OR ASSESS????? ? OR EXAMIN????? ? OR A- PPRAIS?)
S9	38307	S6:S7(5N) (MONITOR? OR TRACK??? ? OR SCREEN??? ? OR CHECK??? ? OR CHEQU??? ? OR DIAGNOS?)
S10	119	S6:S7(5N) (AUDIT OR AUDITS OR AUDITED OR AUDITING OR SCRUTI- N????? ?)
S11	6470	S6:S7(5N) (SCAN OR SCANS OR SCANNED OR SCANNING)
S12	925	S5 AND S8:S11
S13	29	S12 AND STATISTIC?
S14	12073	S1:S4(3N) (EXECUT? OR PERFORM? OR RUN OR RUNS OR RUNNING OR PROCESSE? ? OR PROCESSING OR PROCESS)
S15	139817	S6:S7(3N) (EXECUT? OR PERFORM? OR RUN OR RUNS OR RUNNING OR PROCESSE? ? OR PROCESSING OR PROCESS)
S16	452	S12 AND S14:S15
S17	182	S16 AND PERFORM?
S18	54015	IC='G06F-009/40':IC='G06F-009/495'
S19	28	S17 AND S18
S20	28	S19 NOT S13
S21	28	IDPAT (sorted in duplicate/non-duplicate order)
S22	27	IDPAT (primary/non-duplicate records only)
S23	8726	MC='T01-F05':MC='T01-F05A'
S24	2291	MC='T01-J20C'
S25	52	S16 AND S23:S24
S26	25	S25 AND PERFORM?
S27	11	S26 NOT (S13 OR S21)
S28	11	IDPAT (sorted in duplicate/non-duplicate order)
S29	11	IDPAT (primary/non-duplicate records only)
	?	

13/9/4 (Item 4 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2003 JPO & JAPIO. All rts. reserv..

06786707 **Image available**
MONITOR SYSTEM

PUB. NO.: 2001-014188 [JP 2001014188 A]
PUBLISHED: January 19, 2001 (20010119)
INVENTOR(s): MATSUBARA TATSUYA
APPLICANT(s): NEC INFORMATION SERVICE LTD
APPL. NO.: 11-184891 [JP 99184891]
FILED: June 30, 1999 (19990630)
INTL CLASS: G06F-011/30; G06F-011/34; G06F-015/177

ABSTRACT

PROBLEM TO BE SOLVED: To reduce time and cost, and also expand the **monitor application** range of an operation state by monitoring the operation states of multiple computers and collecting, storing, and analyzing logs that the computers output.

SOLUTION: Log collecting interfaces 13 are provided by computers as various servers. A log automatic monitor part 14 checks logs collected in a log collecting storage means 17 through the log collecting interfaces 13 according to a monitor DB in a monitor DB storage means 16. A statistical analysis part 15 takes a statistical analysis based upon the log data stored in the log storage means 18. The monitor DB storage means 16 is stored with process result/time monitor information, arrival path/nonarrival monitor information, process change monitor information, etc. The log collecting storage means 17 is stored with a normal/abnormal process result, individual application log information on the monitor results, etc., of the numbers of resources and processes, system log information on a process time and a process result code, etc.

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13/9/5 (Item 5 from file: 347)
DIALOG(R)File 347:JAPIO
(c) 2003 JPO & JAPIO. All rts. reserv..

06330917 **Image available**
METHOD FOR ESTIMATING STATISTIC VALUE OF CHARACTERISTICS OF INSTRUCTION PROCESSED BY PROCESSOR PIPELINE

PUB. NO.: 11-272518 [JP 11272518 A]
PUBLISHED: October 08, 1999 (19991008)
INVENTOR(s): CHRYSSOS GEORGE Z
DEAN JEFFREY A
HICKS JAMES E
WALDSPURGER CARL A
WEIHL WILLIAM E
APPLICANT(s): DIGITAL EQUIP CORP <DEC>
APPL. NO.: 10-375364 [JP 98375364]
FILED: November 26, 1998 (19981126)
PRIORITY: 979899 [US 9899], US (United States of America), November 26, 1997 (19971126)
INTL CLASS: G06F-011/34; G06F-009/38

ABSTRACT

PROBLEM TO BE SOLVED: To provide a method for estimating the **statistic** value of characteristics of instructions processed by a processor pipeline.

SOLUTION: In a method for estimating the **statistic** value of characteristics of an instruction processed by a pipeline 111 of a computer system 130 including plural processing steps, the instructions are fetched to the first step of the pipeline 111. Some of the fetched instructions are selected at random. While the state information of the system is recorded as a sample in a **profile record**, the selected instructions are processed by the pipeline 111. The recorded state information is transmitted to **software**. The **software statistically analyzes** the recorded state information from a subset of the instructions and estimates the **statistic** value of the instructions.

COPYRIGHT: (C)1999,JPO

13/9/6 (Item 6 from file: 347)

DIALOG(R)File 347:JAPIO

(c) 2003 JPO & JAPIO. All rts. reserv.

06100067 **Image available**

ACCESS HISTORY MANAGING SYSTEM FOR VIDEO SERVER SYSTEM

PUB. NO.: 11-041588 [JP 11041588 A]
PUBLISHED: February 12, 1999 (19990212)
INVENTOR(s): INOUE ATSUSHI
APPLICANT(s): MITSUBISHI ELECTRIC CORP
APPL. NO.: 09-197261 [JP 97197261]
FILED: July 23, 1997 (19970723)
INTL CLASS: H04N-007/173; H04B-003/46; H04H-001/02; H04H-009/00;
H04N-017/00

ABSTRACT

PROBLEM TO BE SOLVED: To facilitate the trace of processing executed by a user through **history data analysis** and the development of an **application** for executing **history data analysis** such as charge processing or **statistical** processing by collecting the contents of video data access processing executed by a client as access **history data**.

SOLUTION: Clients 103 and 104 request access to video data 102 through a network 105 to a video server 101 and receive the distribution of the video data 102. The clients 103 and 104 notify the access processing contents of the video **data** 102 to a **history** server device 106 as access **history data** at the time point, when processing is completed, for every processing. The history server device 106 writes the access **history data** received from the clients 103 and 104 through a relational data base managing device 107 into **history data** 108 and 109.

COPYRIGHT: (C)1999,JPO

13/9/7 (Item 7 from file: 347)

DIALOG(R)File 347:JAPIO

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04700462 **Image available**

TRACE DATA STATISTICAL PROCESSOR

PUB. NO.: 07-021062 [JP 7021062 A]
PUBLISHED: January 24, 1995 (19950124)
INVENTOR(s): TARUSAWA YUMIKO
APPLICANT(s): NEC CORP [000423] (A Japanese Company or Corporation), JP
(Japan)
APPL. NO.: 05-159507 [JP 93159507]
FILED: June 29, 1993 (19930629)
INTL CLASS: [6] G06F-011/34
JAPIO CLASS: 45.1 (INFORMATION PROCESSING -- Arithmetic Sequence Units)

ABSTRACT

PURPOSE: To perform the logical processing of **trace data** performed at every **statistical processing program** for arbitrary **analysis** comprehensively and to perform the change of a logicizing conversion function at every **statistical processing program** performed at every exchange of a **trace target information processor** in **trace data logicizing conversion processing**.

CONSTITUTION: A **trace data filter 1** which eliminates data unrequired for **statistical processing** from hardware dependent raw data 5, and logically converts the hardware dependent data not applicable to the **statistical processing** to a format applicable to the **statistical processing** and set in common to each **statistical processing program** is provided independently from a **trace data statistical processing part 2**. The hardware dependent data 5 inputted from a tracer 4, after being inputted to the **trace data filter 1** first, and being logically converted, is **statistically processed** by the **statistical processing program**. When the **trace target information processor** is exchanged, the **trace data filter 1** is changed at every **trace target information processor**.

? t13/9/16-18,21

13/9/16 (Item 8 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

014325743 **Image available**
WPI Acc No: 2002-146445/200219
XRPX Acc No: N02-110925

An integrated multimedia broadcasting system and method - which can transmit the multi-media information to the stations everywhere by the nature of group via network
Patent Assignee: WEB POINT CO LTD (WEBP-N)
Inventor: WENG S
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No Kind Date Applcat No Kind Date Week
TW 420780 A 20010201 TW 98105117 A 19980403 200219 B

Priority Applications (No Type Date): TW 98105117 A 19980403

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
TW 420780	A		G06F-019/00	

Abstract (Basic): TW 420780 A

NOVELTY - The invention relates to an integrated multimedia broadcasting system and method, which transmits the control command of multi-media server to the multi-media station, which are located in different places via transmission device, and broadcasts the multimedia information or real-time program of cable television based on the nature of each group.

DETAILED DESCRIPTION - The stations can also **trace** the **record** up to remote server with automatic report **program** for **analysis** and **statistics**. When the unusual phenomenon happens, the station can proceed system operation and maintenance through the remote control system.

DwgNo 1/1

Title Terms: INTEGRATE; BROADCAST; SYSTEM; METHOD; CAN; TRANSMIT; MULTI; MEDIUM; INFORMATION; STATION; NATURE; GROUP; NETWORK

Derwent Class: T01; W02

International Patent Class (Main): G06F-019/00

File Segment: EPI

Manual Codes (EPI/S-X): T01-J03; T01-N01D1; T01-N02A3C; T01-N02B2B; W02-F

13/9/17 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014202721 **Image available**

WPI Acc No: 2002-023418/200203

Method for calculating frame error rate statistics in mobile communication system

Patent Assignee: HYNIX SEMICONDUCTOR INC (HYNI-N)

Inventor: JUN M G; OH S W; SONG T G

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
KR 2001038973	A	20010515	KR 9947175	A	19991028	200203 B

Priority Applications (No Type Date): KR 9947175 A 19991028

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
KR 2001038973	A	1	H04B-017/00	

Abstract (Basic): KR 2001038973 A

NOVELTY - A method for calculating an FER(Frame Error Rate) **statistics** in a mobile communication system is provided to calculate an FER by the second and obtain the number of accumulated frame errors by storing frame error data that a TSB(Transcoding and Selecting Blocking) has transmitted to a DM(Diagnostic Monitoring) every frame and calculating an FER **statistics** value.

DETAILED DESCRIPTION - A mobile terminal attempts a call(S1). A CE(Channel Element) calculates the existence of a frame error for each frame at a reverse channel and transmits a result to a TSB(S2). The TSB displays the characteristics of received frames through a TSB DM(S3). The TSB operates the storage key of the TSB DM and stores **log data** (S4). The TSB analyzes the stored **log data** through a TSB DM **analysis program**, calculates an FER, and outputs frame characteristics dependent on time(S5).

pp; 1 DwgNo 1/10

Title Terms: METHOD; CALCULATE; FRAME; ERROR; RATE; **STATISTICAL** ; MOBILE; COMMUNICATE; SYSTEM

Derwent Class: W02

International Patent Class (Main): H04B-017/00

File Segment: EPI

Manual Codes (EPI/S-X): W02-C05

13/9/18 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014132091 **Image available**
WPI Acc No: 2001-616302/200171
XRPX Acc No: N01-459721

Software usage data normalizing method in licensing fee charging system,
involves correlating software usage information with obtained computer
capacity data based on variations over time of computer capacity data

Patent Assignee: ISOGON CORP (ISOG-N)

Inventor: BARRITZ R; COHEN G; KASSAN P; VARDI D

Number of Countries: 095 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200169389	A2	20010920	WO 2001US40222	A	20010302	200171 B
US 20010044705	A1	20011122	US 2000188380	A	20000310	200176
			US 2001757257	A	20010109	
AU 200150021	A	20010924	AU 200150021	A	20010302	200208
EP 1266288	A2	20021218	EP 2001923316	A	20010302	200301
			WO 2001US40222	A	20010302	

Priority Applications (No Type Date): US 2001757257 A 20010109; US
2000188380 P 20000310

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200169389	A2	E	27	G06F-011/34	
Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
US 20010044705	A1			G06F-011/30	Provisional application US 2000188380
AU 200150021	A			G06F-011/34	Based on patent WO 200169389
EP 1266288	A2	E		G06F-011/34	Based on patent WO 200169389
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					

Abstract (Basic): WO 200169389 A2

NOVELTY - The capacity of the computer is determined by running a computer capacity tracking program . The software usage data is determined by running software product usage monitoring program . The usage information is correlated with the computer capacity data in a manner which restates the results of the software usage data based on variations over time of the computer capacity data.

USE - In licensing fee charging system for normalizing software usage data that is gathered in relation to the execution of software products on a computer.

ADVANTAGE - Data regarding the change in computing capacity is extracted from various information logs and record of extracted data is output to other programs to perform various statistical and normalization calculations.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of software product usage monitoring and computer capacity tracking program .

pp; 27 DwgNo 1/2

Title Terms: SOFTWARE; DATA; NORMALISE; METHOD; FEE; CHARGE; SYSTEM;
CORRELATE; SOFTWARE; INFORMATION; OBTAIN; COMPUTER; CAPACITY; DATA; BASED
; VARIATION; TIME; COMPUTER; CAPACITY; DATA

Derwent Class: T01

International Patent Class (Main): G06F-011/30; G06F-011/34
International Patent Class (Additional): G06F-015/00
File Segment: EPI
Manual Codes (EPI/S-X): T01-E01C; T01-G05C1; T01-J03; T01-J05A1; T01-J05B4P
; T01-M06B

13/9/21 (Item 13 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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013465218 **Image available**
WPI Acc No: 2000-637161/200061
Related WPI Acc No: 2003-327771
XRPX Acc No: N00-472459

Binary image conversion system in memory, translates only portion of non-native instructions which have actually been interpreted in response to application program invoking based on collected profile data
Patent Assignee: DIGITAL EQUIP CORP (DIGI)
Inventor: HERDEG M; ROBINSON S G; YATES J S
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No Kind Date Applcat No Kind Date Week
US 6091897 A 20000718 US 96593588 A 19960129 200061 B

Priority Applications (No Type Date): US 96593588 A 19960129

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes
US 6091897 A 156 G06F-005/00

Abstract (Basic): US 6091897 A

NOVELTY - The run time system has collector for collecting **profile data** in response to interpretation of non-native instruction of application program to determine execution characteristics of non-native instructions. The background system translates only portion of non-native instructions which have actually been interpreted in response to program invoking based on collected **profile data**.

DETAILED DESCRIPTION - The interpreter of the run-time system **examines** single non-native instruction of **application** program at a time to provide and execute the native instruction or native instruction routine. The background system translates only those non-native instructions of application program whose execution is predictable into native image. An INDEPENDENT CLAIM is also included for computer system for executing binary image conversion system.

USE - In memory, for converting instructions from non-native instruction set of non-native computer system to native instruction set of different computer system.

ADVANTAGE - The run time system by collecting data corresponding to execution of non-native image in runtime system, permits behaviors of image to be observed through the profile **statistics** and determines which code is to be translated, thereby eliminates possibility that non-instruction code is mistaken for instruction by background system and hence translated code can be optimized without fear of including non-instructions as part of optimized code. Since single IR is used throughout the translation process, common service routines operating on IR can be used throughout the binary translation process, as contrasted with more costly binary translation process having various IRs, requiring multiple corresponding sets of service routines operating on various IRs.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart

explaining steps involved to execute non-native image.
pp; 156 DwgNo 3A/71
Title Terms: BINARY; IMAGE; CONVERT; SYSTEM; MEMORY; TRANSLATION; PORTION;
NON; NATIVE; INSTRUCTION; INTERPRETATION; RESPOND; APPLY; PROGRAM; INVOKE
; BASED; COLLECT; PROFILE; DATA
Derwent Class: T01
International Patent Class (Main): G06F-005/00
File Segment: EPI
Manual Codes (EPI/S-X): T01-D02; T01-J10D

22/9/1 (Item 1 from file: 350)

DIALOG(R)File 350:Derwent WPIX
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015417625 **Image available**
WPI Acc No: 2003-479765/200345
XRPX Acc No: N03-381316

Obtaining performance data from software compiled with or without trace hooks involves transmitting request to performance analyzer tool to record trace data in response to embedded trace data hook in module

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: GOLDBERG B M; GRITTER D S; MANONI C A; STRAIT G B

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030046667	A1	20030306	US 2001943213	A	20010830	200345 B

Priority Applications (No Type Date): US 2001943213 A 20010830

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20030046667	A1	7		G06F-009/44	

Abstract (Basic): US 20030046667 A1

NOVELTY - The method involves transmitting a request to a performance analyzer tool to record trace data in response to encountering an embedded trace data hook in a module if the module includes trace data hooks and when the trace data flag is ON.

DETAILED DESCRIPTION - If the module does not include trace data hooks and the trace data flag is ON, a request is transmitted to the performance analyzer tool to record trace data in response to entry and exit of the module. A report is received from the performance analyzer tool based on the trace data . The trace data flag is set to ON if the module is registered with a performance analyzer tool while a software application still runs . The module is initiated by the software application. The trace data flag is OFF when the software application is entered. INDEPENDENT CLAIMS are included for the following:

(a) the performance data obtaining system; and
(b) the storage medium storing the computer program for obtaining performance data from software compiled with or without trace hooks.

USE - Used in software performance analysis .

ADVANTAGE - Allows software developers to record performance data for modules, mutually and exclusively, through one of two methods. Can be used with any compiler that supports inserting compatible hooks into compiled source code. Enables to choose granularity of the trace data by compiling in trace hooks or by leaving the trace hooks out. Provides great deal of flexibility in the performance analysis process. Helps to avoid generation of too much information by allowing a user to specify exactly what level of detail to generate for each module within an application.

DESCRIPTION OF DRAWING(S) - The figure is a flowchart showing the process in obtaining the performance data from software compiled with or without trace hooks.

pp; 7 DwgNo 1/2

Title Terms: OBTAIN; PERFORMANCE ; DATA; SOFTWARE; COMPILE; TRACE; HOOK; TRANSMIT; REQUEST; PERFORMANCE ; ANALYSE; TOOL; RECORD; TRACE; DATA; RESPOND; EMBED; TRACE; DATA; HOOK; MODULE

Derwent Class: T01
International Patent Class (Main): G06F-009/44
File Segment: EPI
Manual Codes (EPI/S-X): T01-J20C; T01-S03

22/9/2 (Item 2 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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015394078 **Image available**
WPI Acc No: 2003-456219/200343
Related WPI Acc No: 2003-331008; 2003-456216; 2003-456220
XRXPX Acc No: N03-362790

Memory medium stores measurement expert system implementation program , which is executed to generate run-time specification after analyzing measurement task specification to configure measurement device
Patent Assignee: BRUMLEY J (BRUM-I); LEVY J (LEVY-I); SCHMIT G (SCHM-I); SCHWAN B (SCHW-I)
Inventor: BRUMLEY J; LEVY J; SCHMIT G; SCHWAN B
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No Kind Date Applcat No Kind Date Week
US 20030005179 A1 20030102 US 2001301785 P 20010629 200343 B
US 200110826 A 20011113

Priority Applications (No Type Date): US 2001301785 P 20010629; US 200110826 A 20011113

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes
US 20030005179 A1 116 G06F-009/46 Provisional application US 2001301785

Abstract (Basic): US 20030005179 A1

NOVELTY - The memory medium stores measurement expert system implementation program including instructions to receive and analyze measurement task specifications specifying a measurement task. The run-time specification is generated after analysis to configure measurement devices, to perform measurement task and to generate run-time which is executable to perform measurement task by configured devices.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) measurement system configuration method; and
- (2) measurement program generating expert system.

USE - For measurement of physical phenomena or unit under test (UUT), test and analysis of physical phenomena, simulation, hardware in the loop testing, process monitoring and control of mechanical or electrical machinery, data logging , laboratory research, analytical chemistry.

ADVANTAGE - Ensures interactive design where the user is not asked to specify complete specification up front. Also ensures display realization so that they can be edited directly. Improves ability to add new measurement methods to the system, ability for the user to see solutions generated by the system for extending and modifying the solution, and the ability to detect and help correct invalid specifications and invalid realizations.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart explaining measurement process in measurement expert system.
pp; 116 DwgNo 5/45

Title Terms: MEMORY; MEDIUM; STORAGE; MEASURE; EXPERT; SYSTEM; IMPLEMENT;

PROGRAM; EXECUTE; GENERATE; RUN; TIME; SPECIFICATION; AFTER; MEASURE;
TASK; SPECIFICATION; CONFIGURATION; MEASURE; DEVICE
Derwent Class: S03; T01
International Patent Class (Main): G06F-009/46
International Patent Class (Additional): G06F-009/00; G06F-009/54;
G06F-015/163
File Segment: EPI
Manual Codes (EPI/S-X): S03-E15; T01-G05C; T01-J08F; T01-S03

22/9/3 (Item 3 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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015292076 **Image available**
WPI Acc No: 2003-353009/200333
XRPX Acc No: N03-281956
Hardware dynamic optimization method involves identifying region of interest in application process by processing profile data captured regarding occurrence of microarchitecture events and optimizing identified region
Patent Assignee: CHEN D (CHEN-I); FANG J (FANG-I); LINT B (LINT-I); SHEN J (SHEN-I); WANG H (WANG-I); WANG W (WANG-I)
Inventor: CHEN D; FANG J; LINT B; SHEN J; WANG H; WANG W
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030005423	A1	20030102	US 2001302071	P	20010628	200333 B
			US 2001967220	A	20010928	

Priority Applications (No Type Date): US 2001302071 P 20010628; US 2001967220 A 20010928
Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20030005423	A1	15	G06F-009/45	Provisional application US 2001302071

Abstract (Basic): US 20030005423 A1
NOVELTY - Microarchitecture events relating to a microprocessor executing an application process to be monitored by the hardware monitors, are selected and correspondingly parameters regarding the monitoring of events are established by monitor control vectors. The profile data captured by the monitors regarding the events, are processed based on which a region of interest in the application process is identified and optimized.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) machine readable medium storing hardware dynamic optimization program; and

(2) hardware dynamic optimizer.

USE - For hardware dynamic optimizing of program execution .

ADVANTAGE - Since optimizing region of interest in application process is performed by processing profile data captured regarding occurrence of microarchitecture events, the determination of time costs is performed accurately and the monitoring of different events is performed efficiently.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart explaining the hybrid dynamic optimization process.

pp; 15 DwgNo 1/7

Title Terms: HARDWARE; DYNAMIC; OPTIMUM; METHOD; IDENTIFY; REGION; INTEREST; APPLY; PROCESS; PROFILE; DATA; CAPTURE; OCCUR; EVENT; OPTIMUM;

IDENTIFY; REGION
Derwent Class: T01; U13
International Patent Class (Main): G06F-009/45
File Segment: EPI
Manual Codes (EPI/S-X): T01-F05A; T01-G05C1; T01-S03; U13-D03B1

22/9/4 (Item 4 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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015268302 **Image available**
WPI Acc No: 2003-329231/200331

XRPX Acc No: N03-263367

Event data collection method for diagnostic system, involves providing jump instruction at starting point of named function, to transfer execution control to entry trace data collection control routine

Patent Assignee: BUNNELL M (BUNN-I)

Inventor: BUNNELL M

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20020199172	A1	20021226	US 2001876675	A	20010607	200331 B

Priority Applications (No Type Date): US 2001876675 A 20010607

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 20020199172	A1	14		G06F-009/44	

Abstract (Basic): US 20020199172 A1

NOVELTY - A starting point of named function in an **executable program**, is identified. The instructions at the starting point are stored in a trace code buffer, to create an entry **trace data** collection control routine. A jump instruction is provided at the starting point, to transfer the execution control of named function to the control routine and collect event data.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) program code instrumenting method;
- (2) event data surveying method;
- (3) dynamic instrumentation and event data collection system; and
- (4) diagnostic system using event data collection method.

USE - For collecting event data for **diagnostic** system (claimed), using **software** development tools.

ADVANTAGE - Maximizes discriminating detection and intelligent analysis of event data. Minimizes **performance** impact on the target program.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of trace analysis device.

pp; 14 DwgNo 1/8

Title Terms: EVENT; DATA; COLLECT; METHOD; DIAGNOSE; SYSTEM; JUMP; INSTRUCTION; START; POINT; NAME; FUNCTION; TRANSFER; EXECUTE; CONTROL; ENTER; TRACE; DATA; COLLECT; CONTROL; ROUTINE

Derwent Class: T01

International Patent Class (Main): G06F-009/44

File Segment: EPI

Manual Codes (EPI/S-X): T01-G05A; T01-J20B; T01-S03

22/9/5 (Item 5 from file: 350)

DIALOG(R)File 350:Derwent WPIX
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015251313 **Image available**
WPI Acc No: 2003-312239/200330
XRPX Acc No: N03-248663

Performance data sorting method in computer system, involves automatically sorting performance data for each profile, to allow comparison between profiles

Patent Assignee: HACKING L E (HACK-I); HUFF T R (HUFF-I)

Inventor: HACKING L E; HUFF T R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 20030018960	A1	20030123	US 2001911554	A	20010723	200330 B

Priority Applications (No Type Date): US 2001911554 A 20010723

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 20030018960	A1	9	G06F-009/45	

Abstract (Basic): US 20030018960 A1

NOVELTY - Performance data including a system profile for each program, are obtained from performance counters such as clocktick counter, retired instruction counter, cache miss counter. The performance data is automatically sorted for each profile, to allow comparison between profiles.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) machine readable medium storing performance data sorting program ; and

(2) performance data sorting system.

USE - For sorting execution profiles from one or more system configurations in computer system during analysis of system performance using software tools like Intel Corporations' VTune for Windows developers.

ADVANTAGE - Allows a programmer to compare profiles of different programs running on one system or multiple systems on a module, function or bin level. Enables quick determination of the overall speed of a program and system performance .

DESCRIPTION OF DRAWING(S) - The figure shows a flow diagram of the performance data sorting method.

pp; 9 DwgNo 4/5

Title Terms: PERFORMANCE ; DATA; SORT; METHOD; COMPUTER; SYSTEM; AUTOMATIC ; SORT; PERFORMANCE ; DATA; PROFILE; ALLOW; COMPARE; PROFILE

Derwent Class: T01

International Patent Class (Main): G06F-009/45

File Segment: EPI

Manual Codes (EPI/S-X): T01-F05A; T01-S03

22/9/6 (Item 6 from file: 350)

DIALOG(R)File 350:Derwent WPIX
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015164955 **Image available**
WPI Acc No: 2003-225483/200322
XRPX Acc No: N03-179861

Software development management apparatus sets up evaluation value for software rejected by testing unit, based on calculated pass

prediction stage.

Patent Assignee: MITSUBISHI ELECTRIC CORP (MITQ)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2003044276	A	20030214	JP 2001225657	A	20010726	200322 B

Priority Applications (No Type Date): JP 2001225657 A 20010726

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2003044276	A	22		G06F-009/44	

Abstract (Basic): JP 2003044276 A

NOVELTY - A receiver receives a software developed by a user. A testing unit (3040) **examines** the received **software** and a record unit records the **software** along with version information. An **evaluation** value is set up for the software rejected by the testing unit, based on pass prediction stage that is calculated based on acquired pass stage **log information**. The output of the testing unit is notified to the user.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) software-development management method;
- (2) software-development management program; and
- (3) computer readable recorded medium storing software-development management program.

USE - For management of software development.

ADVANTAGE - The **software** development is **performed** stably.

DESCRIPTION OF DRAWING(S) - The figure shows the software development management apparatus. (Drawing includes non-English language text).

testing unit (3040)

pp; 22 DwgNo 1/30

Title Terms: SOFTWARE; DEVELOP; MANAGEMENT; APPARATUS; SET; UP; EVALUATE; VALUE; SOFTWARE; REJECT; TEST; UNIT; BASED; CALCULATE; PASS; PREDICT; STAGE

Derwent Class: T01

International Patent Class (Main): G06F-009/44

International Patent Class (Additional): G06F-011/28; G06F-017/30

File Segment: EPI

Manual Codes (EPI/S-X): T01-F05; T01-G05A; T01-J05B; T01-S03

22/9/7 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014810819 **Image available**

WPI Acc No: 2002-631525/200268

XRPX Acc No: N02-499391

Image forming device such as composite machine, acquires logging information by performing communication between processes, when control service and application service are executed in parallel

Patent Assignee: RICOH KK (RICO)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2002215420	A	20020802	JP 2001313154	A	20011010	200268 B

Priority Applications (No Type Date): JP 2000309725 A 20001010

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes
JP 2002215420 A 23 G06F-011/28

Abstract (Basic): JP 2002215420 A

NOVELTY - A process monitoring application (117) acquires logging information by performing communication between processes using shared memory (300), when control service and application service are executed in parallel.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) Debugging and process monitoring program;
- (2) Debug method; and
- (3) Process monitoring method.

USE - Image forming device such as composite machine having the functions of copier, printer, facsimile, scanner.

ADVANTAGE - The efficiency of debugging operation is increased even when several processes are performed in parallel.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the process monitoring application. (Drawing includes non-English language text).

Process monitoring application (117)
Shared memory (300)
pp; 23 DwgNo 6/10

Title Terms: IMAGE; FORMING; DEVICE; COMPOSITE; MACHINE; ACQUIRE; LOG; INFORMATION; PERFORMANCE ; COMMUNICATE; PROCESS; CONTROL; SERVICE; APPLY ; SERVICE; EXECUTE; PARALLEL

Derwent Class: P75; S06; T01; T04; W02

International Patent Class (Main): G06F-011/28

International Patent Class (Additional): B41J-029/38; G06F-003/12; G06F-009/46 ; H04N-001/00

File Segment: EPI; EngPI

Manual Codes (EPI/S-X): S06-A14C; T01-F02; T01-J20C; T04-G10; W02-J03A7; W02-J07

22/9/8 (Item 8 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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014412140 **Image available**

WPI Acc No: 2002-232843/200229

XRPX Acc No: N02-179228

Software connection inspection apparatus for computer system, compares duration and restriction time with respect to process request, based on execution log and design package information

Patent Assignee: NIPPONDENSO CO LTD (NPDE)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2002049505	A	20020215	JP 2000232984	A	20000801	200229 B

Priority Applications (No Type Date): JP 2000232984 A 20000801

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes
JP 2002049505 A 11 G06F-011/28

Abstract (Basic): JP 2002049505 A

NOVELTY - A comparison judging unit compares execution log information and design package information acquired from respective

reading stages and compares the duration and restriction time with respect to a process request. An output unit outputs the judgment result based on the comparison.

USE - For object oriented programming in computer system.

ADVANTAGE - The **inspection** of the connection between **software** components, is efficiently **performed**.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the **software** connection **inspection** apparatus. (Drawing includes non-English language text).

pp; 11 DwgNo 1/8

Title Terms: SOFTWARE; CONNECT; INSPECT; APPARATUS; COMPUTER; SYSTEM; COMPARE; DURATION; RESTRICT; TIME; RESPECT; PROCESS; REQUEST; BASED; EXECUTE; LOG; DESIGN; PACKAGE; INFORMATION

Derwent Class: T01

International Patent Class (Main): G06F-011/28

International Patent Class (Additional): G06F-009/44 ; G06F-011/22

File Segment: EPI

Manual Codes (EPI/S-X): T01-F05

22/9/9 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014287384 **Image available**

WPI Acc No: 2002-108085/200215

XRPX Acc No: N02-080507

Execution performance improving method for application in data processing **system**, involves detecting pattern in output data which indicates inefficient coding in source code

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: ARORA R; BERRY R F

Number of Countries: 026 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1170661	A2	20020109	EP 2001480038	A	20010529	200215 B

Priority Applications (No Type Date): US 2000611373 A 20000706

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 1170661	A2	E	19	G06F-009/45	

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): EP 1170661 A2

NOVELTY - A **trace** output **data** generated by instrumentation **code** is analyzed during the **execution** of an **application**. A pattern which indicates an inefficient coding is detected and located in source code of the application. The inefficient coding construct indicates inefficient transfer of data across the interface between Java code and native code.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) Data processing system;
(b) Computer program product comprising instructions for improving **execution** **performance** of an **application**

USE - For data processing system supporting Java environment.

ADVANTAGE - Inefficient use of cross-language boundary coding constructs is detected in improved manner, so that more efficient coding constructs are obtained.

DESCRIPTION OF DRAWING(S) - The figure shows a distributed data processing system.

pp; 19 DwgNo 1B/4

Title Terms: EXECUTE; PERFORMANCE ; IMPROVE; METHOD; APPLY; DATA; PROCESS; SYSTEM; DETECT; PATTERN; OUTPUT; DATA; INDICATE; INEFFICIENT; CODE; SOURCE; CODE

Derwent Class: T01

International Patent Class (Main): G06F-009/45

File Segment: EPI

Manual Codes (EPI/S-X): T01-F05A

22/9/10 (Item 10 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013998049 **Image available**

WPI Acc No: 2001-482264/200152

XRPX Acc No: N01-356953

Adaptive long table cycle minimizing method for data processing system, involves optimizing application program by recognizing loading position of instructions, based on which optimized change file is produced

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: LEVINE F E; ROTH C P

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6249906	B1	20010619	US 98105581	A	19980626	200152 B

Priority Applications (No Type Date): US 98105581 A 19980626

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6249906	B1	23		G06F-009/45	

Abstract (Basic): US 6249906 B1

NOVELTY - Table cycle data is collected by profiling application program using performance monitor . Effective address tables are produced from data to associate effective address of delay instructions. Application program is optimized by detecting loading position of instructions in application program object code. Optimized change file is produced based on detected position and accordingly optimized code is tested.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the system for minimizing the effects of long table cycle in processing system.

USE - For processing system e.g. superscalar pipelined digital processing system of computer.

ADVANTAGE - Improves system performance , as the effects of long table cycle and long cache misses are minimized.

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart illustrating the steps invoked in effects of long table cycle minimizing method.

pp; 23 DwgNo 6/13

Title Terms: ADAPT; LONG; TABLE; CYCLE; METHOD; DATA; PROCESS; SYSTEM; APPLY; PROGRAM; LOAD; POSITION; INSTRUCTION; BASED; CHANGE; FILE; PRODUCE

Derwent Class: T01

International Patent Class (Main): G06F-009/45

File Segment: EPI

Manual Codes (EPI/S-X): T01-F01B; T01-F01C; T01-F03; T01-F05A; T01-F07; T01-H03A; T01-M02C2

22/9/11 (Item 11 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013741324 **Image available**

WPI Acc No: 2001-225554/200123

XRPX Acc No: N01-160140

Multiple user program translating apparatus for use in client-server system, has dynamic translator for executing source instruction by translating code block and creating translation file to be accessed by client

Patent Assignee: HEWLETT-PACKARD CO (HEWP)

Inventor: ISTVAN A F; LE B; PATEL A

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6158047	A	20001205	US 98111956	A	19980708	200123 B

Priority Applications (No Type Date): US 98111956 A 19980708

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 6158047	A	12		G06F-009/45	

Abstract (Basic): US 6158047 A

NOVELTY - A source code module (SCM) (16) with several code blocks comprising source instructions are mapped to memory (17) by operating system. Virtual instruction pointer indicates the source instruction to be executed. Client/dynamic translator (19) executes the instruction by translating a block and storing in buffer (32). A shared translation file is created for translated block, which is accessed by a client.

DETAILED DESCRIPTION - The apparatus translates user program into native code that runs on a native computer hardware that has memory with source file including the program to be translated into native machine code. The operating system is capable of detecting whether the program has an instruction set architecture different from native instruction set architecture. An INDEPENDENT CLAIM is also included for multiple user program translating method.

USE - For client-server system which performs both static and dynamic compilation.

ADVANTAGE - Enables translating source program , as the program executes at run time without terminating the program. Enables translating all the source code in the source file as well as the dynamically generated code . Collects, analyzes and periodically submits the profile data to enable optimization which leads to better machine code quality, thus better performance when executing that code is achieved. The apparatus periodically maps new translated code to shared memory so that multiple users simultaneously execute the code .

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of client-server system.

SCM (16)

Memory (17)

Client/dynamic translator (19)

Buffer (32)

pp; 12 DwgNo 1/4

Title Terms: MULTIPLE; USER; PROGRAM; TRANSLATION; APPARATUS; CLIENT; SERVE ; SYSTEM; DYNAMIC; TRANSLATION; EXECUTE; SOURCE; INSTRUCTION; TRANSLATION ; CODE; BLOCK; TRANSLATION; FILE; ACCESS; CLIENT

Derwent Class: T01
International Patent Class (Main): G06F-009/45
File Segment: EPI
Manual Codes (EPI/S-X): T01-F05A; T01-J20A; T01-M02A1B

22/9/12 (Item 12 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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013595014 **Image available**
WPI Acc No: 2001-079221/200109
Related WPI Acc No: 2000-316921
XRPX Acc No: N01-060264
Computer implementing method to profile computer program execution involves adding profiling code to basic block containing indeterminate length operating system calls, with timing start and end codes
Patent Assignee: RATIONAL SOFTWARE CORP (RATI-N)
Inventor: ANDERSON M; BENNETT J; HASTINGS R; NA C P
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 6126329	A	20001003	US 9374428	A	19930608	200109 B
			US 97871247	A	19970609	

Priority Applications (No Type Date): US 9374428 A 19930608; US 97871247 A 19970609

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
US 6126329	A	31	G06F-009/45	Cont of application US 9374428

Abstract (Basic): US 6126329 A

NOVELTY - A profiling code is added to a basic block containing indeterminate length operating system calls. Timing start code and timing end code are added at the beginning and end time of the OS call. An OS call timing calculation code determines number of clock cycles from start to end timing of the OS call. An OS call timing recording code add the determined number of clock cycles to a clock cycle accumulator.

DETAILED DESCRIPTION - The selected basic block is analyzed to determine fixed number of clock cycles and determine whether the selected basic block contains operating system call.

USE - For **profiling computer program execution**.

ADVANTAGE - **Performs addition of monitoring code to the start of each function, without needing source code, to ensure availability of profiling information for the entire program execution.**

DESCRIPTION OF DRAWING(S) - The figure shows the flowchart of adding **process** of time **profiling code** to each basic block.

pp; 31 DwgNo 5/14

Title Terms: COMPUTER; IMPLEMENT; METHOD; PROFILE; COMPUTER; PROGRAM; EXECUTE; ADD; PROFILE; CODE; BASIC; BLOCK; CONTAIN; INDETERMINATE; LENGTH ; OPERATE; SYSTEM; CALL; TIME; START; END; CODE

Derwent Class: T01

International Patent Class (Main): G06F-009/45

File Segment: EPI

Manual Codes (EPI/S-X): T01-F03; T01-F05; T01-G05C

22/9/13 (Item 13 from file: 350)

DIALOG(R)File 350:Derwent WPIX
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013337321 **Image available**
WPI Acc No: 2000-509260/200046
XRPX Acc No: N00-376878

Compiler for source program with conditional branch instruction loop,
analyzes branch log information to perform optimum load
distribution of objective loop and reanalyzes changed branch pattern to
get optimum code

Patent Assignee: NEC CORP (NIDE)
Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2000194566	A	20000714	JP 98368190	A	19981224	200046 B
JP 3156688	B2	20010416	JP 98368190	A	19981224	200124

Priority Applications (No Type Date): JP 98368190 A 19981224

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2000194566	A	5		G06F-009/45	
JP 3156688	B2	5		G06F-009/45	Previous Publ. patent JP 2000194566

Abstract (Basic): JP 2000194566 A

NOVELTY - The branch **log information** obtained by **execution** of object **program** (3), is **analyzed** by branch pattern analysis unit (6). Based on analyzed result the loop juxtapositionized unit (7) **performs** optimum load distribution of objective loop which changes the branch pattern. The changed branch pattern is reanalyzed to generate optimum code.

DETAILED DESCRIPTION - The repetition frequency of loops and condition sentence in the loops are recorded to form a branch **log information** (5). The collected branch **log information** are coded appropriately in the file. The coded information are used for branch pattern analysis. The branch patterns are analyzed also taking the juxtaposition of input, for specified branch loop. Based on the analysis result, the optimum execution load distributed is assigned for the loop. The branch pattern is reanalyzed for generating the optimum code for the loop. INDEPENDENT CLAIMS are also included for the following:

- (a) compile procedure;
- (b) recording medium with compiler program

USE - For generating object program from source program consisting of conditional branch instructions.

ADVANTAGE - Since optimum load distribution of objective loop is done using loop juxtapositionized unit the queueing time at the time of **program execution** is reduced and improvement in workability of program is achieved.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of compiler system.

- Object program (3)
- Branch pattern analysis unit (6)
- Juxtapositionized unit (7)

pp; 5 DwgNo 1/2

Title Terms: COMPILE; SOURCE; PROGRAM; CONDITION; BRANCH; INSTRUCTION; LOOP ; BRANCH; LOG; INFORMATION; PERFORMANCE ; OPTIMUM; LOAD; DISTRIBUTE; OBJECTIVE; LOOP; CHANGE; BRANCH; PATTERN; OPTIMUM; CODE

Derwent Class: T01

International Patent Class (Main): G06F-009/45

File Segment: EPI

Manual Codes (EPI/S-X): T01-F05E

22/9/14 (Item 14 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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013310574 **Image available**
WPI Acc No: 2000-482511/200042
XRPX Acc No: N00-358755

Program execution analyzing method in parallel computer architecture, has output display for displaying executed instructions and number of available instruction slots during each clock
Patent Assignee: TERA COMPUTER CO (TERA-N); CRAY INC (CRAY-N); BRIGGS P P (BRIG-I); CALLAHAN C D (CALL-I); SHIELDS K A (SHIE-I)
Inventor: BRIGGS P P; CALLAHAN C D; SHIELDS K A
Number of Countries: 087 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200038048	A2	20000629	WO 99US30760	A	19991223	200042 B
AU 200023827	A	20000712	AU 200023827	A	19991223	200048
US 6230313	B1	20010508	US 98221005	A	19981223	200128
EP 1141836	A2	20011010	EP 99967565	A	19991223	200167
			WO 99US30760	A	19991223	
US 20020129339	A1	20020912	US 98221005	A	19981223	200262
			US 2001825434	A	20010403	
EP 1141836	B1	20030514	EP 99967565	A	19991223	200333
			WO 99US30760	A	19991223	
DE 69907965	E	20030618	DE 607965	A	19991223	200348
			EP 99967565	A	19991223	
			WO 99US30760	A	19991223	

Priority Applications (No Type Date): US 98221005 A 19981223; US 2001825434 A 20010403

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
WO 200038048	A2	E	74 G06F-009/00	Designated States (National): AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG US UZ VN YU ZA ZW Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SL SZ TZ UG ZW
AU 200023827	A			Based on patent WO 200038048
US 6230313	B1		G06F-009/45	
EP 1141836	A2	E	G06F-011/34	Based on patent WO 200038048 Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI
US 20020129339	A1		G06F-009/44	Cont of application US 98221005 Cont of patent US 6230313
EP 1141836	B1	E	G06F-011/34	Based on patent WO 200038048 Designated States (Regional): AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
DE 69907965	E		G06F-011/34	Based on patent EP 1141836 Based on patent WO 200038048

Abstract (Basic): WO 200038048 A2

NOVELTY - Indication of trace information reflecting the program execution is received for determining number of processors executing the program installed in the system. The number of available instruction slots for execution of program instruction

during each clock period is determined. The determined number of executed instructions, number of instruction slots and number of processors are displayed.

DETAILED DESCRIPTION - Trace information includes information on number of registers, hardware counters in the processors and variables defined in the program. An INDEPENDENT CLAIM is also included for program execution analyzing software .

USE - Used for analyzing degree of parallelism of program in multi-threaded architecture.

ADVANTAGE - Provision for user to interact with system for obtaining performance analysis information other than the displayed performance measure information is provided. Trace description file provides information such as information specifying print formats and tabular display formats other than providing event definitions. In addition to manually specified sample points, the compiler can insert variety of sample points automatically. Instructions added for single sample point create multiple events if source code corresponding to sample point is executed multiple times.

DESCRIPTION OF DRAWING(S) - The figure shows high level overview of MTA computer with processor connected to interconnection network and memory.

pp; 74 DwgNo 1/10

Title Terms: PROGRAM; EXECUTE; METHOD; PARALLEL; COMPUTER; ARCHITECTURE; OUTPUT; DISPLAY; DISPLAY; EXECUTE; INSTRUCTION; NUMBER; AVAILABLE; INSTRUCTION; SLOT; CLOCK

Derwent Class: T01

International Patent Class (Main): G06F-009/00; G06F-009/44 ; G06F-009/45 ; G06F-011/34

File Segment: EPI

Manual Codes (EPI/S-X): T01-X

22/9/15 (Item 15 from file: 350)

DIALOG(R)File 350:Derwent WPIX
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013180801 **Image available**

WPI Acc No: 2000-352674/200031

XRPX Acc No: N00-264283

Method for relating profile data collecting during execution of optimized computer program back-to-the source language description of computer program by relating each accumulated count to actual line number of a branch instruction

Patent Assignee: HEWLETT-PACKARD CO (HEWP)

Inventor: BUZBEE W B; RUSCETTA M A; THOMPSON C L

Number of Countries: 026 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1004961	A2	20000531	EP 99308943	A	19991110	200031 B
US 6275981	B1	20010814	US 98190994	A	19981112	200148

Priority Applications (No Type Date): US 98190994 A 19981112

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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EP 1004961	A2	E	26	G06F-009/45
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Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT

LI LT LU LV MC MK NL PT RO SE SI

US 6275981	B1	G06F-009/45
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Abstract (Basic): EP 1004961 A2

NOVELTY - The method involves relating each accumulated count to the actual line number of a branch instruction associated with the count and the logic line number of the basic block that contains the target instruction associated with the count.

USE - In run-time **performance analysis** of computer **software programs** compiled by optimizing compilers for correlating run time **profile data** collected during **execution** of an optimized machine code version of program with the source language program from which the machine code version of the program is generated.

ADVANTAGE - Provides improved method of collecting data.

DESCRIPTION OF DRAWING(S) - The drawing shows a control flow graph that represents the intermediate level assembly language version of the routing 'skewed'.

pp; 26 DwgNo 1/3

Title Terms: METHOD; RELATED; PROFILE; DATA; COLLECT; EXECUTE; COMPUTER; PROGRAM; BACK; SOURCE; LANGUAGE; DESCRIBE; COMPUTER; PROGRAM; RELATED; ACCUMULATE; COUNT; ACTUAL; LINE; NUMBER; BRANCH; INSTRUCTION

Derwent Class: T01

International Patent Class (Main): G06F-009/45

File Segment: EPI

Manual Codes (EPI/S-X): T01-F05A; T01-S01B

22/9/16 (Item 16 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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013019468 **Image available**

WPI Acc No: 2000-191319/200017

XRPX Acc No: N00-142454

Dynamic analysis procedure of inclusion software for e.g. software built in LSI, involves reconstructing dummy software by modifying or deleting instruction code based on acquired log information

Patent Assignee: NEC IC MICROCOMPUTER SYSTEMS LTD (NIDE)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2000035891	A	20000202	JP 98202267	A	1998071	200017 B

Priority Applications (No Type Date): JP 98202267 A 19980716

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2000035891	A	13		G06F-009/45	

Abstract (Basic): JP 2000035891 A

NOVELTY - An instruction **code** is **executed** as **log information**. Then dummy inclusion software is reconstructed by modifying or deleting or rearranging the instruction code based on the acquired **log information**. Thus by including speed of **process** velocity required instruction **code** is attained.

USE - For e.g. software built in LSI.

ADVANTAGE - Since modification of instruction **code** is **performed** with reference to acquired **log information**, instruction **code** is attained by **process** velocity in short time thus cost reduction is achieved. **DESCRIPTION OF DRAWING(S)** - The figure shows block diagram of **program** component of dynamic **analysis** method.

Dwg.1/13

Title Terms: DYNAMIC; ANALYSE; PROCEDURE; INCLUSION; SOFTWARE; SOFTWARE; BUILD; LSI; RECONSTRUCT; DUMMY; SOFTWARE; MODIFIED; DELETE; INSTRUCTION; CODE; BASED; ACQUIRE; LOG; INFORMATION

Derwent Class: T01
International Patent Class (Main): G06F-009/45
International Patent Class (Additional): G06F-009/06; G06F-011/34
File Segment: EPI
Manual Codes (EPI/S-X): T01-F05A; T01-F06; T01-G05C1

22/9/17 (Item 17 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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012736980 **Image available**
WPI Acc No: 1999-543097/199946
Related WPI Acc No: 1999-543098; 2000-349476; 2001-662363; 2002-153912;
2002-279430; 2003-361596; 2003-379227; 2003-438381
XRPX Acc No: N99-402809
Program performance monitoring method for monitoring performance
of data processing system
Patent Assignee: INT BUSINESS MACHINES CORP (IBMC); IBM CORP (IBMC)
Inventor: ALEXANDER W P; BERRY R F; MULVEY D L; URQUHART R J
Number of Countries: 028 Number of Patents: 005
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 947927	A2	19991006	EP 99302214	A	19990323	199946 B
US 6002872	A	19991214	US 9852329	A	19980331	200005
JP 11327951	A	19991130	JP 9963958	A	19990310	200007
KR 99077479	A	19991025	KR. 996338	A	19990225	200052
KR 338223	B	20020527	KR 996338	A	19990225	200276

Priority Applications (No Type Date): US 9852329 A 19980331

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 947927	A2	E	17	G06F-011/34	
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT					
US 6002872	A	LI LT LU LV MC MK NL PT RO SE SI			
JP 11327951	A	G06F-007/00			
KR 99077479	A	15 G06F-011/28			
KR 338223	B	G06F-011/28 Previous Publ. patent KR 99077479			

Abstract (Basic): EP 947927 A2

NOVELTY - The occurrence of a selected event is detected, and a call stack associated with the program is identified, in response to a detection of the selected event. The call stack is examined to identify each routine that is currently executing in association with the program. Each routine is represented as a node in tree structure.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for; an a data processing system for monitoring the performance of a program ; a computer program product for use with a data processing system for monitoring performance of a program .

USE - Profiling of data processing systems, and applications executing within data processing systems.

ADVANTAGE - Provides improved method for profiling data processing systems, and monitoring performance of processing systems.

DESCRIPTION OF DRAWING(S) - The drawing shows a flow chart of a process for creating a call stack tree in accordance with the invention.

pp; 17 DwgNo 6/13

Title Terms: PROGRAM; PERFORMANCE ; MONITOR; METHOD; MONITOR; PERFORMANCE

; DATA; PROCESS; SYSTEM
Derwent Class: T01
International Patent Class (Main): G06F-007/00; G06F-011/28; G06F-011/34
International Patent Class (Additional): G06F-009/40
File Segment: EPI
Manual Codes (EPI/S-X): T01-G05C1; T01-H03A; T01-S03

22/9/18 (Item 18 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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012130055 **Image available**
WPI Acc No: 1998-546967/199847
XRPX Acc No: N98-426197

Program compiler - produces object program which contains generated instruction group and optimum code , for performing loop process
Patent Assignee: NEC CORP (NIDE)
Inventor: OKANO S
Number of Countries: 002 Number of Patents: 003
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 10240573	A	19980911	JP 97353561	A	19971222	199847 B
US 6055371	A	20000425	US 97999231	A	19971229	200027
JP 3152194	B2	20010403	JP 97353561	A	19971222	200121

Priority Applications (No Type Date): JP 96356889 A 19961226

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 10240573	A	8		G06F-011/28	
US 6055371	A			G06F-009/45	
JP 3152194	B2	8		G06F-011/34	Previous Publ. patent JP 10240573

Abstract (Basic): JP 10240573 A

The compiler (2) has an instruction generator (6) which generates four types of instructions. The first instruction is used for acquiring the number of loop processes for repeating the predetermined instruction stream included in the object program. A second instruction enables acquiring execution frequency of each loop process. A third instruction is used for acquiring the execution frequency of loop processes employed for repeating the predetermined instruction stream.

A fourth instruction enables acquiring the information for verifying the branch conditions of the condition branch instruction in the loop. Then, a source program is input. An analyser (7) analyses the branch pattern in the loop, based on the contents of a branch log information file (4). A loop optimisation module (5) generates an optimum code for executing the loop process, based on the output of the analyser . An object program containing the optimum code and instruction group is obtained.

ADVANTAGE - Produces object program, efficiently.

Dwg.1/4

Title Terms: PROGRAM; COMPILE; PRODUCE; OBJECT; PROGRAM; CONTAIN; GENERATE; INSTRUCTION; GROUP; OPTIMUM; CODE; PERFORMANCE ; LOOP; PROCESS
Derwent Class: T01
International Patent Class (Main): G06F-009/45 ; G06F-011/28; G06F-011/34
International Patent Class (Additional): G06F-009/45
File Segment: EPI
Manual Codes (EPI/S-X): T01-F05A; T01-G05A

22/9/19 (Item 19 from file: 350)

DIALOG(R) File 350:Derwent WPIX
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011591201 **Image available**

WPI Acc No: 1998-008330/199801

XRPX Acc No: N98-006627

Computer implemented process for optimising programs at object code level - dynamically profiling program at object code level, analysing memory reference patterns and re-ordering memory references to create optimised program

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)

Inventor: HEISCH R R

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5689712	A	19971118	US 94280910	A	19940727	199801 B

Priority Applications (No Type Date): US 94280910 A 19940727

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
US 5689712	A	12		G06F-009/44	

Abstract (Basic): US 5689712 A

The process for directing a computer system having at least a processor, memory, and user controls, to optimize a program at the object code level, involves instrumenting each of the memory references of the program to create an instrumented program by setting a pointer to an address and scanning the program to detect one of the memory references. The memory reference is replaced with a branch to the pointer, an instrumentation code is generated at the pointer and the memory reference is generated. The above steps are repeated until all of the memory references have been instrumented.

The instrumented program is executed to capture effective address trace data for each of the memory references. Access patterns of the effective address trace data are analysed in response to the analyzing step, and the memory references are reordered to create an optimized program.

ADVANTAGE - Optimises performance without altering functionality.
Dwg.5/10

Title Terms: COMPUTER; IMPLEMENT; PROCESS; OPTIMUM; PROGRAM; OBJECT; CODE; LEVEL; DYNAMIC; PROFILE; PROGRAM; OBJECT; CODE; LEVEL; ANALYSE; MEMORY; REFERENCE; PATTERN; ORDER; MEMORY; REFERENCE; OPTIMUM; PROGRAM

Derwent Class: T01

International Patent Class (Main): G06F-009/44

International Patent Class (Additional): G06F-009/45

File Segment: EPI

Manual Codes (EPI/S-X): T01-F07; T01-J20A

22/9/20 (Item 20 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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011319795 **Image available**

WPI Acc No: 1997-297699/199727

Related WPI Acc No: 2001-380402

XRPX Acc No: N97-246050

Computer system having support function that allows application of functions provided by operating system - has generating section that generates system operation information including job execution

history information and file access history information

Patent Assignee: HITACHI LTD (HITA)

Inventor: ARAI T; NAGASUKA H; SHINMURA Y

Number of Countries: 002 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
US 5634120	A	19970527	US 9349508	A	19930419	199727 B
JP 3268338	B2	20020325	JP 92102852	A	19920422	200222

Priority Applications (No Type Date): JP 92102852 A 19920422

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
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US 5634120	A	29		G06F-009/00	
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JP 3268338	B2	36		G06F-009/46	Previous Publ. patent JP 5298120
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Abstract (Basic): US 5634120 A

The computer system comprises storage device for storing data files and job programs each prepared for accessing the data files, executing device for executing job programs parallelly or sequentially, system monitoring device for monitoring in accordance with job program executions performed, so as to obtain w.r.t. individual job program executions system operation status information including job program name, data file name to which the job program accesses, access type representing read or write access, access start and end times, and record access order indicating order of accesses to respective records in the data file from the job program.

The searching device fog searches job programs to which a selected utility function is applicable, where the job programs access same file. The access types of the job programs indicate respectively write and read access, and the record access order of the first and second job programs coincide with each other.

The input device inputs job control statement which includes records containing instructions for execution of jobs obtained by searching device, which searches record from the input job control statement containing file identifier, converter for converting the searched record so as to apply the utility function, and output for the converted job control statement.

ADVANTAGE - Provides computer system supporting effective application of basic or semi-basic program functions such as VLF, PREST and Excel Batch supplied by operating system and utility programs. Supports user to effectively and easily use functions of operating system and utility program.

Dwg.26/26

Title Terms: COMPUTER; SYSTEM; SUPPORT; FUNCTION; ALLOW; APPLY; FUNCTION; OPERATE; SYSTEM; GENERATE; SECTION; GENERATE; SYSTEM; OPERATE; INFORMATION; JOB; EXECUTE; HISTORY; INFORMATION; FILE; ACCESS; HISTORY; INFORMATION

Derwent Class: T01

International Patent Class (Main): G06F-009/00; G06F-009/46

File Segment: EPI

Manual Codes (EPI/S-X): T01-F05D

22/9/21 (Item 21 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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009441373 **Image available**

WPI Acc No: 1992-251312/199231

XRAM Acc No: C93-171580

XRPX Acc No: N93-298128

Diagnostic gas monitoring for trace contaminants - includes sampling process gas, passing sample through analysers, generating output signal from each analyser, generating status signal, etc.

Patent Assignee: UNION CARBIDE IND GASES TECHNOLOGY CORP (UNIC); PRAXAIR TECHNOLOGY INC (PRAX-N); UNION CARBIDE IND GASES TECHN (UNIC)

Inventor: MALCZEWSKI M L

Number of Countries: 008 Number of Patents: 009

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 488120	A2	19920603	EP 91120075	A	19911125	199231	B
CA 2056111	A	19920527	CA 2056111	A	19911125	199233	
US 5265031	A	19931123	US 90618115	A	19901126	199348	
EP 488120	A3	19950301	EP 91120075	A	19911125	199541	
CA 2056111	C	19951003	CA 2056111	A	19911125	199546	
EP 488120	B1	19960925	EP 91120075	A	19911125	199643	
DE 69122357	E	19961031	DE 622357 EP 91120075	A	19911125	199649	
ES 2091848	T3	19961116	EP 91120075	A	19911125	199702	
KR 9707065	B1	19970502	KR 9121059	A	19911125	199941	

Priority Applications (No Type Date): US 90618115 A 19901126

Cited Patents: .SR-Pub; EP 170515; FR 2016216; US 4618855; US 4818348; US 4891186

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
EP 488120	A2	E 32	G01N-033/00	
US 5265031	A	26	G01N-021/00	
EP 488120	B1	E	G06F-009/44	
	Designated States (Regional):	BE DE ES FR IT		
DE 69122357	E		G06F-009/44	Based on patent EP 488120
ES 2091848	T3		G06F-009/44	Based on patent EP 488120
CA 2056111	A		G01N-001/22	
EP 488120	A3		G01N-033/00	
CA 2056111	C		G01N-001/22	
KR 9707065	B1		G01N-021/00	

Abstract (Basic): EP 488120 A

Diagnostic gas monitoring process for (1) the continuous analysis of **trace** contaminants in a **process** gas chosen from O₃, N₂, Ar or H₂ and (ii) for identifying, storing and recording **data** representative of such **trace** contaminants in the **process** gas, for analysing the stored data to identify erroneous analysis data and to identify remedial actions to remedy the conditions causing the erroneous analysis comprises:

(a) sampling the process gas to provide a stream of sample gas;
(b) passing the sample gas through several analysers to determine the presence of one or more trace contaminants chosen from O₂, H₂, CO, CO₂, hydrocarbons, water moisture and particulate matter, with such selection being distinct from the selection of the process gas; (c) generating an output signal from each analyser corresp. to the level of impurity for each trace contaminant under investigation; (d) generating a status signal representative of preselected parameters of analyser operation corresp. to the operating status of one or more of the analysers; (e) transferring the status signals and the output signals to a computer for storage in the form of data values; (f) providing a rule base **program** to **perform** a problem **analysis** of the data values to identify problems based upon an examination of each rule in the rule base program with one or more rules defining a distinctive statement of a problem for identifying the existence or non-existence of a problem; (g) providing an expert shell for **executing** the rule

values; (f) analysing the data values for the existence of a problem using an expert system rule base programme consisting of a multiplicity of rules arranged to form statements corresponding to different problems; (g) executing the rule base programme using an expert system shell with each problem recognised when the data values fall outside defined limits or are not present; (h) storing a file of remedial actions for a preselected number of problem conditions; (i) directing the expert system shell to select the examination of the rules in the rule base programme in a predetermined hierarchy and in a linear sequence; and (j) matching problems identified by execution of the rule base programme with one or more preselected remedial actions in the remedial action file.

USE/ADVANTAGE - Process for analysing gas impurity levels in a process gas stream and for identifying erroneous conditions of analysis and providing an operator with remedial actions to remedy each erroneous condition, the ability to assess the validity of analytical data, generated from commercially available process analysers, being as important as the analytical data itself.

Dwg.1/4

Title Terms: DIAGNOSE; GAS; MONITOR; TRACE; CONTAMINATE; SAMPLE; PROCESS; GAS; PASS; SAMPLE; THROUGH; ANALYSE; GENERATE; OUTPUT; SIGNAL; ANALYSE; GENERATE; STATUS; SIGNAL

Derwent Class: E36; J04; L03; T01; U11

International Patent Class (Main): G01N-001/22; G01N-021/00; G01N-033/00;
G06F-009/44

International Patent Class (Additional): G06F-015/20; G06F-015/46;
G06F-019/00

File Segment: CPI; EPI

Manual Codes (CPI/A-N): E11-Q03; E31-A02; E31-D01; E31-H03; E31-J; J04-C04;
L03-B01A4

Manual Codes (EPI/S-X): T01-J07A; T01-J07B; U11-C15B

22/9/22 (Item 22 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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008646084 **Image available**

WPI Acc No: 1991-150113/199121

XRPX Acc No: N91-115271

Inter-procedure register allocation for compiler - using inter-procedure global promotion to registers and movement of spill code to infrequently used procedures

Patent Assignee: HEWLETT-PACKARD CO (HEWP)

Inventor: ODNERT D; SANTHANAM V

Number of Countries: 005 Number of Patents: 007

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 428084	A	19910522	EP 90121496	A	19901109	199121 B
EP 428084	A3	19921021	EP 90121496	A	19901109	199341
US 5428793	A	19950627	US 89435914	A	19891113	199531
US 5555417	A	19960910	US 89435914	A	19891113	199642
			US 95313432	A	19950123	
EP 428084	B1	19970409	EP 90121496	A	19901109	199719
DE 69030425	E	19970515	DE 630425	A	19901109	199725
			EP 90121496	A	19901109	
JP 3110040	B2	20001120	JP 90308409	A	19901113	200101
Priority Applications (No Type Date): US 89435914 A 19891113; US 95313432 A 19950123						

Cited Patents: NoSR.Pub; 4.Jnl.Ref

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 428084	A				
	Designated States (Regional):	DE FR GB			
US 5428793	A	20		G06F-009/44	
US 5555417	A	40		G06F-009/44	Cont of application US 89435914 Cont of patent US 5428793
EP 428084	B1	E	39	G06F-009/45	
	Designated States (Regional):	DE FR GB			
DE 69030425	E			G06F-009/45	Based on patent EP 428084
JP 3110040	B2		47	G06F-009/45	Previous Publ. patent JP 3172936

Abstract (Basic): EP 428084 A

The computer language compilation and optimisation system involves the compilers (12) for each unit producing a summary list which are formed into a **program** database and **analysed** (16) for register optimization before being linked (17). The analyser allows the global variables of a program to be accessed in common registers across procedures including using single registers for different global variables in distinct program regions.

Secondly, spill code is identified and moved to procedures which are executed relatively infrequently.

USE/ADVANTAGE - Improves register usage, minimises spill code and hence improves **program performance**. (40pp Dwg.No.1/9)

Abstract (Equivalent): EP 428084 B

A method for compiling and linking a program on a general purpose computer having a plurality of machine registers (r16, r17, r18), a sub-set thereof being assigned for use as interprocedural registers (110, 113), so as to allow more efficient allocation of the interprocedural registers when the data processor is **executing** a computer **program** comprising a plurality of procedures, at least one of the procedures operating on a global variable (g1,g2,g3), and having a program call graph (130), the program call graph comprising a set of nodes (A,B,C,D,E,F,G,H,I), each said node representing a procedure, interconnected by directional edges (132,134,136) to other said nodes, each said edge representing a call from a first procedure to a second procedure, the node representing the first procedure being the ancestor of the node representing the second procedure and the node representing the second procedure being the descendent of the node representing the first procedure, the method characterised by the steps of: defining webs (150,152,154,156) corresponding to global variables, each said web corresponding to a global variable, each said web comprising a minimal set of program call graph nodes (A,B,C; C,F,G; B,D,E; E) such that the corresponding global variable is accessed in at least one node in the web and such that, for each node in the web, the corresponding global variable is not accessed in any ancestor node in the web, and the global variable is not accessed by any descendant node not in the web; determining an order for the webs wherein the order is determined by the frequency of the use of the global variable corresponding to each said web or from **profile information** (58) collected by **executing** the **program** with exemplary input data on a data processing system capable of **running** the **program**; and assigning the global variables to interprocedural machine registers according to the order determined for the webs.

Dwg.1/9

Abstract (Equivalent): US 5555417 A

A method for optimizing register usage in an **executable** computer **program** on a computer processor having a limited plurality of machine registers, said computer program being compiled from a plurality of individual source code files, said method comprising the steps of:

reading said individual source code files having high-level program

language text reciting a plurality of procedures,
said source code files being read one at a time; determining
syntactic and semantic correctness of each said source code file;
translating each said source code file into an intermediate
representation and generating therefrom an intermediate representation
file;
collecting local information about usage of global variables from
each said source code file, wherein a global variable is a named
storage location the contents of which can be stored in a single
machine register and is accessible from a plurality of procedures;
estimating need of registers for each procedure from each said
intermediate representation; and
constructing a record of said register need and said global
variable usage and calls to procedures for each procedure in a summary
file for each said source code file.

Dwg.2/7

US 5428793 A

The method involves implementing optimization techniques using a **program analyzer** used in connection with a **program** compiler to optimize usage of limited register resources in a computer processor. The first optimization technique, called inter-procedural global variable promotion allows the global variables of a program to be accessed in common registers across a number of procedures. Moreover, a single common register can be used for different global variables in distinct regions of a program call graph. This is realized by identifying sub-graphs, of the program call graph, called webs, where the variable is used.

The second optimization technique, called spill code motion, involves the identification of regions of the call graph, called clusters, that facilitate the movement of spill instructions to procedures which are executed relatively less often. This decreases the overhead of register saves and restores which must be executed for procedure calls.

USE/ADVANTAGE - Operating general purpose data processor having number of machine registers, having sub-set assigned for use as inter-procedural registers. Allows efficient allocation of inter-procedural registers when the data processor is **executing** computer **program** comprising number of procedures.

Dwg.5/9

Title Terms: INTER; PROCEDURE; REGISTER; ALLOCATE; COMPILE; INTER;
PROCEDURE; GLOBE; PROMOTE; REGISTER; MOVEMENT; SPILL; CODE; INFREQUENT;
PROCEDURE

Derwent Class: T01

International Patent Class (Main): G06F-009/44 ; G06F-009/45

International Patent Class (Additional): G06F-009/45

File Segment: EPI

Manual Codes (EPI/S-X): T01-F05

22/9/23 (Item 23 from file: 347)

DIALOG(R)File 347:JAPIO

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07314461 **Image available**
SOFTWARE OPERATION ANALYZER

PUB. NO.: 2002-182947 [JP 2002182947 A]
PUBLISHED: June 28, 2002 (20020628)
INVENTOR(s): ANDO MITSUO
APPLICANT(s): RICOH CO LTD
APPL. NO.: 2000-384708 [JP 2000384708]

FILED: December 19, 2000 (20001219)
INTL CLASS: G06F-011/28; G06F-009/46

ABSTRACT

PROBLEM TO BE SOLVED: To provide a **software operation analyzer** for **performing** dynamic tagging without damaging the real time property of a system to the software system of parallel operations and detecting a part to be a problem.

SOLUTION: In a computer system capable of realizing multi-task processings, a **process profiler** (315) for analyzing the characteristics of the parallel operations by acquiring the dynamic **trace information** of the software system of the parallel operations is provided and process monitoring is **performed**.

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22/9/24 (Item 24 from file: 347)
DIALOG(R)File 347:JAPIO
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06261676 **Image available**
METHOD AND DEVICE FOR PARALLELIZED COMPLICATION

PUB. NO.: 11-203256 [JP 11203256 A]
PUBLISHED: July 30, 1999 (19990730)
INVENTOR(s): MIZUMI SHIYUNSUKE
TAKAHASHI TAKASHI
APPLICANT(s): HITACHI LTD
APPL. NO.: 10-003698 [JP 983698]
FILED: January 12, 1998 (19980112)
INTL CLASS: G06F-015/16; G06F-009/45

ABSTRACT

PROBLEM TO BE SOLVED: To provide a compiler that can automatically parallelize a program including list vectors indispensable to numerical analyses or the like in science and technology.

SOLUTION: In order to obtain size (an extended size from a basic size) of a partial arrangement after parallelization of information necessary for parallelization, local list vectors and a data communication table in a compiler (1) with regard to an object loop including an arrangement a subscript of which is given in the list vector, an information acquisition instruction is added to a **program** of successive **processing** and is executed in a single form, so that the obtained **information** is stored in **profile data** 30. A compiler (2) inputs a source code and **profile data** and **performs** parallelization of all loops including the object look by way of a normal syntactic **analysis**. Many **programs** such as a finite element method, a boundary element method, or program of a vectorized difference method that cannot be prepared without list vectors can be automatically parallelized.

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22/9/25 (Item 25 from file: 347)
DIALOG(R)File 347:JAPIO
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03926535 **Image available**
DATA BASE MANAGEMENT SYSTEM HAVING PERFORMANCE IMPROVING MEANS

PUB. NO.: 04-291635 [JP 4291635 A]
PUBLISHED: October 15, 1992 (19921015)
INVENTOR(s): EHATA SHINKICHI
 HASHIMOTO MASAKO
APPLICANT(s): HITACHI LTD [000510] (A Japanese Company or Corporation), JP
 (Japan)
APPL. NO.: 03-056477 [JP 9156477]
FILED: March 20, 1991 (19910320)
INTL CLASS: [5] G06F-012/00; **G06F-009/44**
JAPIO CLASS: 45.2 (INFORMATION PROCESSING -- Memory Units); 45.1
 (INFORMATION PROCESSING -- Arithmetic Sequence Units)
JOURNAL: Section: P, Section No. 1494, Vol. 17, No. 98, Pg. 98,
 February 26, 1993 (19930226)

ABSTRACT

PURPOSE: To automatically reflect the diagnostic result of a system by including a means for changing a driving environment defined by a user to an environment necessary for driving each data base in a data base management system.

CONSTITUTION: The data base management system 1 has a communication control program 2, data base access program 3, **history information** acquiring program 4, **processing program** 5, and a feedback circuit 6, and the circuit 6 is provided with an additional knowledge part 7. When a system load is reduced to less than a previously determined value within a previously determined fixed time, the program 5 starts up the circuit 6. The circuit 6 extracts necessary **information** from a **history information** file 12 and inspects it. Namely, knowledge offered by the system and knowledge 7 additionally changed by the user by using knowledge registering/changing **program** 13 are used together to **inspect** the necessary information.

22/9/26 (Item 26 from file: 347)
DIALOG(R) File 347:JAPIO
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03493741 **Image available**
COMPILE PROCESS SYSTEM

PUB. NO.: 03-156641 [JP 3156641 A]
PUBLISHED: July 04, 1991 (19910704)
INVENTOR(s): NAKAJIMA TOMIKO
APPLICANT(s): KOBE NIPPON DENKI SOFTWARE KK [000000] (A Japanese Company or Corporation), JP (Japan)
APPL. NO.: 01-298057 [JP 89298057]
FILED: November 15, 1989 (19891115)
INTL CLASS: [5] **G06F-009/45**
JAPIO CLASS: 45.1 (INFORMATION PROCESSING -- Arithmetic Sequence Units)
JOURNAL: Section: P, Section No. 1259, Vol. 15, No. 391, Pg. 147,
 October 03, 1991 (19911003)

ABSTRACT

PURPOSE: To shorten the compiling time by applying no second compiling process to the uncorrected lines of a source program.

CONSTITUTION: The **history information** is read out of a **history**

information file 4. A partial compiling means 2 collates the **history information** with the declaration line information read out of a declaration line information file 5 and then decides whether a partial compiling process is possible or not based on the analysis of a partial compiling enable syntax. Then the declaration/label information file 7 is read and therefore a declaring process is omitted. A full compiling means 3 copies an intermediate language text file 6 to an uncorrected part to omit the syntax analyzing process, the meaning **analyzing process**, and the **code generating process**. Then the means 3 performs the meaning **analyzing process** and the **code generating process** to only a corrected part and produces an intermediate language text and then an object program. In such a constitution, the compiling time is shortened.

22/9/27 (Item 27 from file: 347)
DIALOG(R)File 347:JAPIO
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03108249 **Image available**
INTERNAL INTERRUPTION CONTROL SYSTEM FOR MICROPROCESSOR

PUB. NO.: 02-083749 [JP 2083749 A]
PUBLISHED: March 23, 1990 (19900323)
INVENTOR(s): IKEDA NAOYA
OGURA TOSHIHIKO
APPLICANT(s): HITACHI LTD [000510] (A Japanese Company or Corporation), JP
(Japan)
APPL. NO.: 63-234984 [JP 88234984]
FILED: September 21, 1988 (19880921)
INTL CLASS: [5] G06F-011/28; G06F-009/46
JAPIO CLASS: 45.1 (INFORMATION PROCESSING -- Arithmetic Sequence Units)
JAPIO KEYWORD: R131 (INFORMATION PROCESSING -- Microcomputers &
Microprocessors)
JOURNAL: Section: P, Section No. 1063, Vol. 14, No. 283, Pg. 107, June
19, 1990 (19900619)

ABSTRACT

PURPOSE: To permit a trace interruption only to a specific instruction type like a subroutine, etc., at execution by sorting the instructions of a microprocessor and having a request of a trace interruption by reference to a **trace** interruption **information** table.

CONSTITUTION: The trace interruption requests are previously written into a trace interruption request table 11 for each type of instructions. A microprocessor 1 analyzes the type and the contents of an instruction via an instruction decoder 6 and executes this instruction. Then an arithmetic processing unit 7 refers to the table 11 in response to an instruction code and outputs a trace interruption deciding signal only when the instruction code is coincident with a trace interruption control bit in a status register 8. Thus it is possible to selectively **perform** the instruction **trace** jobs based on the call of a subroutine and a specific instruction type like a resetting instruction received from the subroutine, etc. Then the **program** debugging and **checking** efficiency is improved.
?

29/9/1 (Item 1 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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015055684 **Image available**
WPI Acc No: 2003-116200/200311
XRPX Acc No: N03-092671

Processor collects trace data of common block of program and determines change of program counter value to detect branch instruction or interruption of program
Patent Assignee: FUJITSU LTD (FUIT)
Number of Countries: 001 Number of Patents: 001
Patent Family:
Patent No Kind Date Applcat No Kind Date Week
JP 2002342114 A 20021129 JP 2001151078 A 20010521 200311 B

Priority Applications (No Type Date): JP 2001151078 A 20010521
Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes
JP 2002342114 A 11 G06F-011/28

Abstract (Basic): JP 2002342114 A

NOVELTY - A trace buffer (18) stores the trace data of a common block of a program and the present value of a program counter (PC) (14) used during a common fetch cycle. The processor performs trace data collection process and determines the change of the PC value to detect branch instruction or interruption of program.

USE - Used for program optimization, damage investigation, debug, hardware and software development.

ADVANTAGE - The trace data of the common block of the program is easily collected to detect the branch instruction or interruption of the program. Thus, the analysis process is easily enabled and the creation of an execution profile is correctly and easily performed

DESCRIPTION OF DRAWING(S) - The figure shows the perceptive block diagram of the processor. (Drawing includes non-English language text).

Program counter (14)
Trace buffer. (18)
pp; 11 DwgNo 1/9
Title Terms: PROCESSOR; COLLECT; TRACE; DATA; COMMON; BLOCK; PROGRAM;
DETERMINE; CHANGE; PROGRAM; COUNTER; VALUE; DETECT; BRANCH; INSTRUCTION;
INTERRUPT; PROGRAM
Derwent Class: T01
International Patent Class (Main): G06F-011/28
File Segment: EPI
Manual Codes (EPI/S-X): T01-F03A; T01-G05A; T01-J20C

29/9/2 (Item 2 from file: 350)
DIALOG(R)File 350:Derwent WPIX
(c) 2003 Thomson Derwent. All rts. reserv.

015007678 **Image available**
WPI Acc No: 2003-068195/200306
Related WPI Acc No: 2003-059615; 2003-059672; 2003-504341
XRPX Acc No: N03-052915
Generating process for prospective information regarding an application for analyzing applications generating prospective information regarding the application based at least in part on historical

information

Patent Assignee: SENTIAT TECHNOLOGIES INC (SENT-N)
Inventor: SHUPPS E A; SWARTZ J; WILSON K H
Number of Countries: 100 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
WO 200299573	A2	20021212	WO 2002US17226	A	20020604	200306 B

Priority Applications (No Type Date): US 2001295646 P 20010604

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
WO 200299573	A2	E	33 G06F-000/00	

Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG US UZ VN YU ZA ZM ZW

Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

Abstract (Basic): WO 200299573 A2

NOVELTY - The process involves retrieving **data** regarding **historical information** for an application. Prospective information is generated regarding the application based at least in part on the **historical information**. The **process** further involves identifying components within the application and component relationships. At least some of the components are part, but not all, of a document. The application is tested to generate the **historical information** for the components.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) a data processing system readable medium.

USE - For **analyzing applications**.

ADVANTAGE - Constructs and **analyzes** a profile for **applications**

(s) to determine their functionality and **performance**.

DESCRIPTION OF DRAWING(S) - The figure shows constructing and analyzing a profile.
pp; 33 DwgNo 3/10

Title Terms: GENERATE; PROCESS; PROSPECTING; INFORMATION; APPLY; APPLY; GENERATE; PROSPECTING; INFORMATION; APPLY; BASED; PART; HISTORY; INFORMATION

Derwent Class: T01

International Patent Class (Main): G06F-000/00

File Segment: EPI

Manual Codes (EPI/S-X): T01-J05B1; T01-J05B3; T01-J05B4P; T01-J20C ; T01-S03

29/9/3 (Item 3 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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014423129 **Image available**
WPI Acc No: 2002-243832/200230
XRPX Acc No: N02-188699

Computer system for generating application execution trace data , forwards event data generated by Java language virtual machines to logging services component

Patent Assignee: IBM CANADA LTD (IBMC); INT BUSINESS MACHINES CORP (IBMC)

Inventor: FARAJ M
Number of Countries: 028 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1179777	A2	20020213	EP 2001306841	A	20010810	200230 B
CA 2315449	A1	20020210	CA 2315449	A	20000810	200230
US 20020073063	A1	20020613	US 2001925395	A	20010809	200243

Priority Applications (No Type Date): CA 2315449 A 20000810

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
EP 1179777	A2	E 16	G06F-011/36	
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT				
LI LT LU LV MC MK NL PT RO SE SI TR				
CA 2315449	A1	E	G06F-011/34	
US 20020073063	A1		G06F-007/00	

Abstract (Basic): EP 1179777 A2

NOVELTY - The reliability availability and serviceability (RAS) monitor (10) defines functional characteristics of the Java language virtual machines (26,28,30) before launching the machines. An event queue (32) of the RAS monitor receives event data from virtual machines, when launched and enabled by the monitor. The received **data** is forwarded to **logging** service component for generating **trace data** to be stored in a trace file (20).

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(a) Computer program product for application **execution trace data** generation;

(b) Application **execution trace data** generation method;

(c) Computer system for analyzing **trace file data** ;

(d) Computer program product for **trace file data analysis**

USE - For generating **application execution trace data** for an object oriented product including information such as class name, method name, method entry/exit events, entry/exit parameter values, thread identifiers and host name during run time for component debugging and fine tuning, **performance analysis** and failure data capture.

ADVANTAGE - Trace of an application is obtained without adding additional instrumentation code to the source code or byte code of the application, hence component size is minimized. A reusable architecture is achieved, since the entire trace/debug code needed to generate the **data for trace** is stand-alone component monitor and the components of system are reusable. Problem determination for the applications provide specific information about unexpected or undesirable **application execution** based on predefined and modifiable product descriptions. The **logging** service captures **data** from the VM launched by the monitor, hence the tracing functionality is independent from the application code. The user can view the complete execution path of a given application, spanning multiple products to understand potentially complex run time **execution** of the **application**. Any general computer such as a main frame computer, personal computer can be used and event data implementation can be done with other computer languages such as object oriented languages like C++, Smalltalk, assembly or machine language.

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of the computer system architecture.

Reliability availability and serviceability monitor (10)

Trace file (20)

Virtual machines (26,28,30)

Event queue (32)
pp; 16 DwgNo 1/1
Title Terms: COMPUTER; SYSTEM; GENERATE; APPLY; EXECUTE; TRACE; DATA;
FORWARD; EVENT; DATA; GENERATE; LANGUAGE; VIRTUAL; MACHINE; LOG; SERVICE;
COMPONENT
Derwent Class: T01
International Patent Class (Main): G06F-007/00; G06F-011/34; G06F-011/36
International Patent Class (Additional): G06F-011/30
File Segment: EPI
Manual Codes (EPI/S-X): T01-F05G3; T01-F07; T01-J20C ; T01-N03B1; T01-S03

29/9/4 (Item 4 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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014320960 **Image available**
WPI Acc No: 2002-141662/200219
XRPX Acc No: N02-107134

Symbolic data verification method for performance analysis of computer program , involves determining if trace data for module matches with module symbolic data in file based on criteria including checksum

Patent Assignee: INT BUSINESS MACHINES CORP (IBMC)
Inventor: HUSSAIN R Y; JOHN C C; LEVINE F E; RICHARDSON C M
Number of Countries: 026 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
EP 1172729	A2	20020116	EP 2001305865	A	20010706	200219 B

Priority Applications (No Type Date): US 2000613190 A 20000710

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
EP 1172729	A2	E	33	G06F-011/34	

Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT
LI LT LU LV MC MK NL PT RO SE SI TR

Abstract (Basic): EP 1172729 A2

NOVELTY - The **trace data** for modules is read from a trace buffer. A read **trace data** is compared with module symbolic data in a symbol file, to determine whether the **trace data** matches with module symbolic data in symbol file, based on criteria, including checksum, time stamp, fully qualified path and segment size.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (a) Data display method and apparatus;
- (b) Symbolic data verifying apparatus;
- (c) Computer program product storing symbolic data verification **program** and **performance analysis** display **program**

USE - For verifying symbolic data for **performance analysis** of computer **program**, **applications** in platform specific environment, and platform independent environment including JAVA environment.

ADVANTAGE - Eliminates access of duplicate **information** on system during **tracing** by identifying each loaded module by its fully qualified path during start trace and hence minimizes amount of information stored in memory for symbolic resolution thereby improving operation efficiency.

DESCRIPTION OF DRAWING(S) - The figure shows the explanatory diagram of symbolic data verification apparatus.

pp; 33 DwgNo 6/21

Title Terms: SYMBOL; DATA; VERIFICATION; METHOD; PERFORMANCE ; ANALYSE;

COMPUTER; PROGRAM; DETERMINE; TRACE; DATA; MODULE; MATCH; MODULE; SYMBOL;
DATA; FILE; BASED; CRITERIA
Derwent Class: T01
International Patent Class (Main): G06F-011/34
International Patent Class (Additional): G06F-011/32
File Segment: EPI
Manual Codes (EPI/S-X): T01-E01C; T01-F07; T01-G01A; T01-G05C1; T01-J20C ;
T01-S03

29/9/5 (Item 5 from file: 350)
DIALOG(R)File 350:Derwent WPIX
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013544682 **Image available**
WPI Acc No: 2001-028888/200104
XRPX Acc No: N01-022899

Software combination inspection apparatus for developing new software , compares log information from execution result of designers source program with design package information, and displays comparison result

Patent Assignee: NIPPONDENSO CO LTD (NPDE)
Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2000298600	A	20001024	JP 99106727	A	19990414	200104 B

Priority Applications (No Type Date): JP 99106727 A 19990414

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2000298600	A	16		G06F-011/28	

Abstract (Basic): JP 2000298600 A

NOVELTY - The stored message sequence charts related to process request between software components, are read and converted into design package information. Designer source program (S) is executed by ICE (18a) of ECU (18), based on sequence chart and from execution result, execution log information is extracted and compared with design package information. Comparison result is displayed on display device (10).

USE - In software development of object oriented system designing.

ADVANTAGE - Since log information extracted from execution result of source program is compared with design package information and comparison result is displayed, efficient combination test of software obtained by combining several software components is performed .

DESCRIPTION OF DRAWING(S) - The figure shows the block diagram of software combination inspection apparatus.

Display device (10)
ECU (18)
ICE (18a)
Designer source program (S)
pp; 16 DwgNo 1/10

Title Terms: SOFTWARE; COMBINATION; INSPECT; APPARATUS; DEVELOP; NEW; SOFTWARE; COMPARE; LOG; INFORMATION; EXECUTE; RESULT; DESIGN; SOURCE; PROGRAM; DESIGN; PACKAGE; INFORMATION; DISPLAY; COMPARE; RESULT

Derwent Class: T01

International Patent Class (Main): G06F-011/28

International Patent Class (Additional): G06F-009/06

File Segment: EPI

Manual Codes (EPI/S-X): T01-J20C

29/9/6 (Item 6 from file: 350)
DIALOG(R) File 350:Derwent WPIX
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013189433 **Image available**
WPI Acc No: 2000-361306/200031
XRPX Acc No: N01-368416

Debugging method for parallel programs carried out in high speed parallel computer involves combining graphical and textual data from execution log file on graphical user interface screens to analyses execution state
Patent Assignee: KOREA ELECTRONICS & TELECOM RES INST (KOEL-N); KOREA ELECTRONICS & TELECOM RES (KOEL-N); ELECTRONICS & TELECOM RES INST (ELTE-N)

Inventor: CHI D; LEE B; ON G; PARK C; JIH D H; LEE B S; OHN G W; PARK C H;
CHI D H; ON G W

Number of Countries: 002 Number of Patents: 003

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
KR 99034145	A	19990515	KR 9755643	A	19971028	200031 B
US 6275956	B1	20010814	US 98131334	A	19980807	200155
KR 248376	B1	20000315	KR 9755643	A	19971028	200122

Priority Applications (No Type Date): KR 9755643 A 19971028

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
KR 99034145	A			G06F-011/28	
US 6275956	B1	11		G06F-011/00	
KR 248376	B1			G06F-011/28	

Abstract (Basic): US 6275956 B1

NOVELTY - Parallel program execution log and program table information created through reference execution . Graphical view of program is generated (50) e.g. thread/time view, and textual data (47) is merged with it to allow them to be viewed together on graphical user interface (GUI) screens (48) allowing analysis of execution state. Programs may be multithreaded or message-passing interface (MPI) programs

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a debugging equipment that uses the described method.

USE - For debugging parallel programs carried out on high speed parallel computer.

ADVANTAGE - Allows both dynamic and visual debugging to be performed simultaneously.

DESCRIPTION OF DRAWING(S) - Drawing shows a flow chart of the method.

Textual view of execution state (47)

GUI screen (48)

Graphical view of execution state (50)

pp; 11 DwgNo 2/6

Title Terms: DEBUG; METHOD; PARALLEL; PROGRAM; CARRY; HIGH; SPEED; PARALLEL ; COMPUTER; COMBINATION; GRAPHICAL; TEXT; DATA; EXECUTE; LOG; FILE; GRAPHICAL; USER; INTERFACE; SCREEN; ANALYSE; EXECUTE; STATE

Derwent Class: T01

International Patent Class (Main): G06F-011/00; G06F-011/28

File Segment: EPI

Manual Codes (EPI/S-X): T01-F05A ; T01-F07; T01-J12B1; T01-J20C ;
T01-M02C

29/9/7 (Item 7 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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013151541 **Image available**

WPI Acc No: 2000-323413/200028

XRPX Acc No: N00-243084

Software evaluation apparatus performs back trace analysis during issue of a system call in case of praxis of application program, and trace output of information on program running state, is done Patent Assignee: FUJI XEROX CO LTD (XERF)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2000099367	A	20000407	JP 98264153	A	1998091	200028 B

Priority Applications (No Type Date): JP 98264153 A 19980918

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 2000099367	A	8		G06F-011/28	

Abstract (Basic): JP 2000099367 A

NOVELTY - During issue of a system call in case of praxis of an application program (11), back trace analysis is done and the trace output of information on the program running state, is done by a trace output unit (12a). A debug unit (13) converts the trace output to information on a symbolic format.

USE - For application program execution in general purpose computer, microcomputer, personal computer.

ADVANTAGE - Enables to perform sufficient evaluation including back trace analysis, without need for any special apparatus.

DESCRIPTION OF DRAWING(S) - The figure shows block diagram of software evaluation apparatus.

Application program (11)

Operating system (12)

Trace output unit (12a)

Debug unit (13)

pp; 8 DwgNo 1/9

Title Terms: SOFTWARE; EVALUATE; APPARATUS; PERFORMANCE ; BACK; TRACE; ANALYSE; ISSUE; SYSTEM; CALL; CASE; APPLY; PROGRAM; TRACE; OUTPUT; INFORMATION; PROGRAM; RUN; STATE

Derwent Class: T01

International Patent Class (Main): G06F-011/28

File Segment: EPI

Manual Codes (EPI/S-X): T01-G05A; T01-J20B2; T01-J20C

29/9/8 (Item 8 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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011239394 **Image available**

WPI Acc No: 1997-217297/199720

XRPX Acc No: N97-179280

Command trace control method for efficiency analysis of hardware and software of data processor - has traced unit and command trace control unit that are arranged in same data processor connected to operating system

Patent Assignee: FUJITSU LTD (FUIT)
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 9062539	A	19970307	JP 95218410	A	19950828	199720 B

Priority Applications (No Type Date): JP 95218410 A 19950828

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 9062539	A	10	G06F-011/28	

Abstract (Basic): JP 9062539 A

The method involves storing a first traced program (A1) in a first memory unit (12) for a traced unit (11). A branched unit (13) passes an operation starting indication data (A2) of the first traced program stored in the first memory unit, to command trace control unit (10). The operation starting indication data is evacuated to a second memory unit (16) by a first environmental evacuation unit. A first command (B1) of the first traced program is read from the first memory unit with a command copy unit (19). The command copy unit copies a second command (B2) from a third memory unit (20), when the read first command is not a branch instruction.

An environmental decompression unit (21) compresses the operation starting indication data stored by the second memory unit and the instruction stored by the third memory unit is read. A command executing unit (22) performs trace of read instruction according to the decompressed operation starting indication data. A second environmental evacuation unit (23) stores the command trace data (T1) which is the result of command execution unit, in a fourth memory unit (24). The traced unit and the command trace control unit are arranged in a single data processor (3) connected to an operating system (1).

ADVANTAGE - Collects command trace data with high speed.

Dwg.1/6

Title Terms: COMMAND; TRACE; CONTROL; METHOD; EFFICIENCY; ANALYSE; HARDWARE ; SOFTWARE; DATA; PROCESSOR; TRACE; UNIT; COMMAND; TRACE; CONTROL; UNIT; ARRANGE; DATA; PROCESSOR; CONNECT; OPERATE; SYSTEM

Derwent Class: T01

International Patent Class (Main): G06F-011/28

File Segment: EPI

Manual Codes (EPI/S-X): T01-G02A; T01-J20C

29/9/9 (Item 9 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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010586108 **Image available**

WPI Acc No: 1996-083061/199609

XRPX Acc No: N96-069436

Programmable controller data tracing for reading trace buffer content - involves address value recording of user program counter which performs access to arbitrary variable and provides automatic data, by using processor which has debugging interruption mechanism

Patent Assignee: YASKAWA ELECTRIC CORP (YASW)

Number of Countries: 001 Number of Patents: 002

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 7334211	A	19951222	JP 94151586	A	19940608	199609 B
JP 3358759	B2	20021224	JP 94151586	A	19940608	200304

Priority Applications (No Type Date): JP 94151586 A 19940608

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 7334211	A		3	G05B-019/048	
JP 3358759	B2		3	G05B-019/048	Previous Publ. patent JP 7334211

Abstract (Basic): JP 7334211 A

The method involves setting of the address of an arbitrary variable as the debugging register (12) of a processor (11). The processor has a debugging interruption mechanism. A memory (13) then stores a user program (14), a variable **data** (15) and a **trace data**. A monitor (20) then displays the content of the memory.

The user program number, the user program step number and the variable value are stored in the degree of the debugging interruption generated by accessing to the address of a trace buffer (16), where the data content can be read and displayed on the monitor device.

ADVANTAGE - Easily **monitors execution state of program** counter in cases such as debugging work. Automatically records user program counter address value whenever accessing variable generated user program counter.

Dwg.1/4

Title Terms: PROGRAM; CONTROL; DATA; TRACE; READ; TRACE; BUFFER; CONTENT; ADDRESS; VALUE; RECORD; USER; PROGRAM; COUNTER; **PERFORMANCE**; ACCESS; ARBITRARY; VARIABLE; AUTOMATIC; DATA; PROCESSOR; DEBUG; INTERRUPT; MECHANISM

Derwent Class: T01; T06

International Patent Class (Main): G05B-019/048

International Patent Class (Additional): G05B-015/02; G05B-023/02; G06F-011/28

File Segment: EPI

Manual Codes (EPI/S-X): T01-G05A; T01-J20C ; T06-A04B

29/9/10 (Item 10 from file: 350)

DIALOG(R)File 350:Derwent WPIX

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010459868 **Image available**

WPI Acc No: 1995-361187/199547

Emulator for booting of microcomputer - has boot emulation selector to change signal course of boot from application appts or from master microcomputer

Patent Assignee: HITACHI LTD (HITA); HITACHI MICON SYSTEM KK (HITA-N)

Number of Countries: 000 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 7210415	A	19950811	JP 942769	A	19940114	199547 B

Priority Applications (No Type Date): JP 942769 A 19940114

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
JP 7210415	A		5	G06F-011/22	

Abstract (Basic): JP 7210415 A

The emulator has a boot emulation selector (8) for communication of user program data from a master microcomputer. A signal due to which the master microcomputer **performs** its booting, is passed from a slave microcomputer (6) to the boot emulator selector.

A boot trace controller (10) receives control signals from the

selector which then sends out data signal for monitoring of the booting. The data is stored in a trace memory (5). Conditions to stop booting are input into the boot emulator brake controller (11) before booting execution starts. When these conditions are made during booting, a brake controller (4) output a trigger and the boot operation is stopped.

ADVANTAGE - Stores **trace information** of booting in memory. Simplifies boot **programming** and its operation. **Performs** debugging of appts efficiency. **Performs** boot **program** and **evaluation** of operation easily.

Dwg.1/3

Title Terms: EMULATION; MICROCOMPUTER; BOOT; EMULATION; SELECT; CHANGE; SIGNAL; COURSE; BOOT; APPLY; APPARATUS; MASTER; MICROCOMPUTER

Derwent Class: T01

International Patent Class (Main): G06F-011/22

File Segment: EPI

Manual Codes (EPI/S-X): T01-G06; T01-J15A2; T01-J20C

29/9/11 (Item 11 from file: 350)

DIALOG(R) File 350:Derwent WPIX

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008159347 **Image available**

WPI Acc No: 1990-046348/199007

XRPX Acc No: N90-035564

Marking emulating analysis in test program - has host controller connected to memory and to analyser for analysing instructions according to given coding scheme

Patent Assignee: HEWLETT-PACKARD CO (HEWP)

Inventor: MORRISON R D

Number of Countries: 005 Number of Patents: 004

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
EP 354654	A	19900214	EP 89306439	A	19890626	199007	B
US 5073968	A	19911217	US 88230807	A	19880809	199202	
EP 354654	B1	19951011	EP 89306439	A	19890626	199545	
DE 68924507	E	19951116	DE 624507	A	19890626	199551	
			EP 89306439	A	19890626		

Priority Applications (No Type Date): US 88230807 A 19880809

Cited Patents: A3...9129; EP 261247; FR 2598001; No-SR.Pub; US 4205370; US 4636940

Patent Details:

Patent No Kind Lan Pg Main IPC Filing Notes

EP 354654 A E 14

Designated States (Regional): DE FR GB NL

EP 354654 B1 E 16 G06F-011/00

Designated States (Regional): DE FR GB NL

DE 68924507 E G06F-011/00 Based on patent EP 354654

Abstract (Basic): EP 354654 A

Additional memory (38) is arranged to store marks which correspond to individual instructions in the program under test. The marking tags provide information regarding states acquired, by an emulator during traces for dequeuing. The target processor (52) is connected to the marks memory and is arranged to execute the **program** under test and to generate a list of the state information (by combining and converting addresses, data, status, tags) fetched by the processor and which includes the corresponding marks. A list of the generated state

File 15:ABI/Inform(R) 1971-2003/Aug 02
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 (c) 2003 McGraw-Hill Co. Inc
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File 647:CMP Computer Fulltext 1988-2003/Jul W2
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File 674:Computer News Fulltext 1989-2003/Aug W1
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? ds

Set	Items	Description
S1	4610444	HISTORY OR HISTORIES OR HISTORICAL OR TRACE? ? OR TRACING? OR PROFIL??? ?
S2	21384	CHRONOLOG??? ? OR CHRONOLOGUING
S3	266118	LOG OR LOGS
S4	140655	LOGGED OR LOGGING
S5	307023	S1:S4(3N) (DATA OR INFORMATION OR RECORD? ?)
S6	10738331	APP OR APPS OR APPLICATION? ? OR PROGRAM? ? OR PROGRAMMING OR PROGRAMME OR PROGRAMMES OR CODE OR CODES OR SOFTWARE OR SO- FT()WARE? ? OR SOURCECODE?
S7	68640	OBJECTCODE? OR CODING? ? OR BYTECODE?
S8	547953	S6:S7(5N) (ANALYS? OR ANALYZ? OR ANALYT? OR REVIEW? OR EVAL- UAT? OR INSPECT???? ? OR ASSESS????? ? OR EXAMIN????? ? OR A- PPRAIS?)
S9	336328	S6:S7(5N) (MONITOR? OR TRACK??? ? OR SCREEN??? ? OR CHECK??? ? OR CHEQU??? ? OR DIAGNOS?)
S10	36468	S6:S7(5N) (AUDIT OR AUDITS OR AUDITED OR AUDITING OR SCRUTI- N????? ?)
S11	28435	S6:S7(5N) (SCAN OR SCANS OR SCANNED OR SCANNING)
S12	64371	S1:S4(3N) (EXECUT? OR PERFORM? OR RUN OR RUNS OR RUNNING)
S13	615160	S6:S7(3N) (EXECUT? OR PERFORM? OR RUN OR RUNS OR RUNNING)
S14	3584008	QUANTIF? OR CHRONOLOGICAL? OR RETRIEV? OR QUERY? OR QUERIE? ? OR REQUEST? OR SEARCH? OR QUANTITAT?
S15	5283	S5(S)S8:S11
S16	549	S15(S)S12:S13
S17	120	S16(S) (S14 OR STATISTICAL)
S18	95	S16(S)S14
S19	35	S16(S)STATISTICAL

S20 120 S18:S19
S21 42 S20/2001:2003
S22 78 S20 NOT S21
S23 72 RD (unique items)
?
PLEASE ENTER A COMMAND OR BE LOGGED OFF IN 5 MINUTES
? t23/3,k/6,10

23/3,K/6 (Item 6 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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01335731 99-85127
Implementing the Universal Measurement Architecture
Morley, Dave
Capacity Management Review v24n10 PP: 1, 4+ Oct 1996
ISSN: 1049-2194 JRNL CODE: PPR
WORD COUNT: 1272

...TEXT: the environment, provide a capacity planning service, or provide other uses of the data as **requested** by management. These MAPs may be used for performance monitoring, forecasting, providing tuning advice, and so on. Examples of MAPs would be a graphical performance monitor to show current and **historical performance** activity of any metric, a distributed threshold monitor for alerting performance **analysts** of current problems, or a **program** which creates a tabular report from the **historical performance** data in order to report the resource usage to management.

Data Capture Layer. Moving to the...

23/3,K/10 (Item 10 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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00834277 94-83669
Speed generator
Pare, Dave; Lee, Jonathan
UNIX Review v12n3 PP: 67-69 Mar 1994
ISSN: 0742-3136 JRNL CODE: UXR
WORD COUNT: 1526

...TEXT: have come a long way, and the field of performance analysis is no exception. **Quantify**, by Pure Software, is one of the most recent additions to the programmer's productivity toolkit. Programmers can use **Quantify** to measure and then **analyze** a **program's performance**. Although **Quantify** collects **profiling information** more slowly than standard profiling tools, the analysis interface is well engineered and provides a truly superior way of identifying the **performance characteristics** of an **application**.

We subjected two large codebases to an analysis by Quantify. One was a 20,000...
? t23/3,k/36,41

23/3,K/36 (Item 8 from file: 20)
DIALOG(R)File 20:Dialog Global Reporter
(c) 2003 The Dialog Corp. All rts. reserv.

02958023
AG Group Announces the Availability of NetSense and ProConvert,
Complementary Software for EtherPeek and TokenPeek for Windows
BUSINESS WIRE
September 28, 1998
JOURNAL CODE: WBWE LANGUAGE: English RECORD TYPE: FULLTEXT
WORD COUNT: 887

... as transport retransmissions or slow response time, you can get "Top 10" worst or best performing applications from your trace file. All data can be extracted for custom report generation in a Windows application. Expert collision analysis or MAC error analysis is also available. NetSense also has the industry's first and...

23/3,K/41 (Item 2 from file: 647)
DIALOG(R)File 647:CMP Computer Fulltext
(c) 2003 CMP Media, LLC. All rts. reserv.

01188624 CMP ACCESSION NUMBER: EET19990405S0081
DSP software reliability gets a boost
Jack Greenbaum, Member of Technical Staff, Texas Instruments Inc., Santa Barbara, Calif.
ELECTRONIC ENGINEERING TIMES, 1999, n 1055, PG78
PUBLICATION DATE: 990405
JOURNAL CODE: EET LANGUAGE: English
RECORD TYPE: Fulltext
SECTION HEADING: Embedded Systems - Focus: Tools And Strategies
WORD COUNT: 803

... of target event logs can be uploaded and displayed by the host development environment during program execution .

Resource monitoring uses accumulators to gather statistical information about time-varying values in the target application program. These statistics are ideal for...

...computation of application parameters such as pitch, gain and closed-loop errors that depend on statistical averaging. They're also useful for profiling the performance of data -dependent algorithms.

Accumulator objects compute and store three kinds of statistical values using a series...

? t23/3,k/46

23/3,K/46 (Item 3 from file: 674)
DIALOG(R)File 674:Computer News Fulltext
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088660
Keep Those Webplates Spinnings
Performance monitoring platforms that can keep your site in balance.
Byline: GARRETT MICHAEL HAYES
Journal: Network World Page Number: 59
Publication Date: November 06, 2000
Word Count: 3911 Line Count: 359

Text:

... Netuitive 5.0. Even though several of the vendors offer monitoring services as well as monitoring products, we tested only the software

products. The Buyer's Guide interactive chart (www.nwfusion.com, DocFinder: 1622) includes a range...

... to problems by alerting an administrator with e-mail messages, SNMP traps, console messages, event log entries, or by performing conditional testing, agent-centered actions (such as restarting a service on a remote system), or...

... administrator, pulling data from the various configured agents. These reports are also live rather than historical, updating information as the agents continue to monitor the system. More traditional reporting, in the historical sense... advantage of any good visual presentation. The material is accurate, but pedestrian. The Holistix approachHolistix Software 's Holistix product uses "monitors" (the specific tests and metrics) grouped together into "Web applications" (the system pieces that make...

...corrective actions that the system can take, while "policies" define the relationship between the Web applications , their monitors and the various available action plans. The installation process asks for the default Web site to monitor and sets up a default Web application with some basic monitors based on that information, greatly easing the familiarization process. Adding monitors to a Web application definition was easy, and we especially liked that we could explicitly test the monitors and...

...a particular Web page on a given system, and a database monitor connects to and retrieves information from a specific database. SiteScope provides 32 types of monitors, including CPU, Domain Name...a series of HTTP steps that might occur in a complex Web transaction such as searching a database or completing a purchase. With our basic e-commerce Web site, constructing such...

... it uses no client-side agents, SiteScope's ability to take corrective actions relies on running applications and batch files local to the server where SiteScope is installed. To ease use of...

?

PLEASE ENTER A COMMAND OR BE LOGGED OFF IN 5 MINUTES

? t23/3,k/47-48,50-51

23/3,K/47 (Item 4 from file: 674)
DIALOG(R)File 674:Computer News Fulltext
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086880

Windows watchers

ipMonitor is tops at keeping a close watch on your midsized Windows network
Byline: BARRY NANCE, NETWORK WORLD TEST ALLIANCE
Journal: Network World Page Number: 53
Publication Date: September 04, 2000
Word Count: 3152 Line Count: 307

Text:

... for a midsized network (up to several hundred nodes), you 'll need one of these monitoring and alerting software packages. While these tools aren 't as feature-laden as ones from Tivoli, Computer Associates...

... Gold 5.0, Ripple Technologies ' LogCaster 2.6, NetIQ 's AppManager 3.4, Breakout Technologies ' MonitorIT 2.0, NTP Software 's System Sentinel 2000, MediaHouse Software 's ipMonitor 6.0, Heroix 's RoboMon NT 7...

...most corrective action options, including rebooting a server, restarting an NT service or launching a **program**, batch file or third-party **diagnostic** utility. IpMonitor 's reports are highly useful and configurable. The supplied report templates include Availability...

... one or more e-mail address destinations for each report. IpMonitor stores monitoring parameters and **statistical** performance data in its internal database. The ipMonitor Web-based interface is well-designed and...

... simple OGetting StartedO booklet, but the online help is comprehensive, clear and context-sensitive. An **application** perspectiveThe monitoring agents of NetIQ 's AppManager impressed us by detecting broken trust relationships across Windows NT...

... network devices and non-Windows computers. Like ipMonitor, AppManager could monitor Windows NT/2000 's **performance** parameters, event **logs**, registry, services and specific **applications running** on NT/2000, such as Oracle, SQL Server, Exchange, Lotus Domino, Citrix MetaFrame, Citrix WinFrame... similar features, strengths and weaknesses. We gave RoboMon NT lower scores because it didn 't **monitor** quite as many **applications** as AppManager, its script language was less powerful and the printed documentation wasn 't as...

... rule keep an eye on virtually any NT activity we wished. These activities included NT **Performance** Monitor items, event **log** entries, Oracle or SQL Server relational database changes, application log file entries, Component Object Model...

...devices such as routers and switches, it can also send IP pings and SNMP polling **requests** across the network. However, Guardian 's corrective action feature was more difficult to configure, it...

... should perform its problem detection. A rule set can have up to eight classes: event, **performance**, **program**, service, SNMP alert, command, system down and printer. Creating a working rule set is a...Heroix 's RoboMon NT and NetIQ 's AppManager, System Sentinel tracks Windows NT/2000 event **log** entries, services and **Performance** Monitor statistics. Via IP pings and SNMP polling, System Sentinel also monitors the health of network devices. However, it doesn 't **track** specific **applications running** on NT/2000 or changes to the registry. When System Sentinel detects a problem, it...

... for network problemsRipple Technologies ' LogCaster does a good job of monitoring Windows NT/2000 event **logs**, **performance data**, TCP/IP-based devices and certain services. Using filters that took us just minutes to...

... into NT event log entries. LogCaster includes plug-ins for monitoring Citrix MetaFrame servers and Check Point **Software** Firewall-1 servers. In all cases, LogCaster 's monitoring agents insert entries in the NT...

... sending e-mail, calling a pager and launching a program to take corrective action (the **program** runs on the **MonitorIT** server, although the problem may have occurred on a different machine). MonitorIT doesn 't transmit IP-addressable devices, the reporting tool gave us excellent real-time and **historical** views of availability, **performance** and selected monitored events. Using the predefined report templates showed us NT Server general performance...

... is not intuitive. When defining an alert (for example, setting up a threshold to be **monitored**), the **program** starts off in a Oreview mode. You must click on New or Edit buttons to...

23/3,K/48 (Item 5 from file: 674)
DIALOG(R) File 674:Computer News Fulltext
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086007

Tools to tune your network for speed

Lucent's VitalSuite is the tool of choice for solving application performance problems.

Byline: BARRY NANCE, NETWORK WORLD TEST ALLIANCE

Journal: Network World Page Number: 47

Publication Date: July 24, 2000

Word Count: 2958 Line Count: 303

Text:

... from perfect. More realistically, your staff might include a skilled troubleshooter who tries to solve application performance problems by visiting users complaining of sluggish response times with a protocol analyzer under his...

... the servers and the network. The person then makes an educated guess to pinpoint the application's performance bottleneck. As an alternative and better-automated approach to solving application performance problems, several vendors offer software tools that identify bottlenecks, determine capacity and gauge scalability. To help you decide the best tool to solve your organization's application performance woes, we invited vendors to submit their performance monitoring tools for this review. Our evaluation focused on software products that inspect network, client and server application behavior to find the causes of snags, stoppages and snarls. We tested CompuWare's EcoScope...

... easy to use in light of its complexity, VitalSuite is a well-integrated collection of software modules for monitoring network activity, ensuring WAN link service-level agreement (SLA) compliance and tracking application performance. It accurately and easily pinpointed our deliberately caused bottlenecks in the Visual Basic client/server, Web-based search engine and other software we tested with (See How We Did It, page xx). We...

...ve installed the VitalAgent client software, then relays the information to VitalAnalysis and VitalHelp. VitalAnalysis monitors applications and maintains an historical analysis of system and application performance and trends. For capacity planning and other purposes, it stores a year's worth of...

... actual network traffic. Both approaches are useful.) The Transact toolkit lets programmers define unique business application transactions for VitalSuite to monitor. We found using AutoMon and the Transact toolkit simple and straightforward, although both required rudimentary...

... identification of problems and their causes. Each Heat Chart displays a color-coded matrix of application performance factors and computing components, termed "resource classes." Each Heat Chart cell corresponds to a resource...

... the intersection of "Sybase" and "effective transaction throughput" turns from green to red. VitalSuite reports application performance data in three views, Business, Applications and Reports. Customizing the Business view as either My...

...My Business is a configurable preference, with each view a different way

of looking at **performance** metrics from **application** and network statistics. My Vital typically presents a network-centric view of performance, while My...)

... into categories such as domains, groups, clients and servers. Each tab index displays network-related **application performance** criteria, including lost packets, round-trip delays, availability, response time throughput and client, network and...

... a high-level menu of available reports, categorized by job description. These descriptions include management, **application monitoring**, network **monitoring** and capacity planning. To show **application performance** trends, VitalSuite's planning report uses a simple trending arrow, pointing up or down, along... API supports both user-defined plug-ins, which are custom-written synthetic transactions S3 can **track**, and **Application Response Monitoring** (ARM)-enabled **applications** based on the joint IBM/Hewlett-Packard ARM standard. The process is simple and well-documented, and after less than a day's **programming**, we had S3 **monitoring** our Visual Basic insurance rating **application**. The Web traffic interception module made quick work of monitoring our Web-based **search** engine's performance troubles. In each test, S3 correctly identified the bottleneck we'd deliberately...

... of the application simulation, and how it can predict performance (and identify trends) by analyzing **historical data**. NextPoint calls this baseline data "traffic signatures." Each signature represents **application performance** as a set of minimum, maximum and average response times. S3's reports disclosed exactly the information we needed to solve **performance** bottlenecks in our **application** environments. For capacity planning, S3's performance predictions uncovered trends early and accurately in our...

... uptime, time to return to service after a failure and response times. Using data from **software** probes **running** on Windows NT, NetWare and Unix machines around the network, EcoScope and EcoTools span the...

... as sentries by sending traps to an SNMP management tool when baselines are exceeded. To **monitor application performance**, the probes passively **monitor** actual **application** network traffic to determine average and maximum response times for user-selectable transactions. In addition...) X

... times for a given URL. This passive approach supplied us with performance data from the **running** of the actual **application**, which meant we didn't need to use synthetic transactions to simulate **application performance** problems. On the other hand, it also meant EcoScope and EcoTools had to be active...

... interface to configure the monitoring tasks. Conversely, while the Windows interface can show only one **statistical** chart at a time, the Java-based console impressed us by graphing and displaying multiple...

...are excellent, we had to manually export EcoScope data into a relational database to use **query** tools for advanced analysis of our **historical data**. Compuware suggests using a reporting aid (such as Seagate Software's Crystal Reports) for seriously...

... removing endpoints much more difficult than installing them. Pegasus takes a bimodal approach to performance **monitoring** - it can emulate an **application**'s use of the network by timing its transmission of synthetic transactions or it can...Overview" to in-depth statistics. However, most Pegasus configuration tasks, such as defining endpoints, identifying **applications** to **monitor** and designing reports, are available only through the Win32 user interface. Installing Pegasus is a...

... Transfer Protocol, POP3 and Simple Mail Transfer Protocol activity, but it is almost useless for **tracking** custom **applications**. ResponseCenter lacks the ability to synthesize application-specific network **request** and response messages. The ResponseCenter probes were about twice the size of the Pegasus probes...

... event to use as a trigger (HTTP page receipt, for example). It then produces an **application monitoring** process you can schedule to run on a regular basis. The ResponseCenter Win32 console displays...

...it. Scouting for slow applications Like ResponseCenter, NetScout Systems' AppScout is a protocol-oriented rather than **application -oriented performance monitoring** tool. It can accurately and quickly tell you the volumes and generic types (FTP, HTTP...

... it can't pinpoint bottlenecks for custom-written applications. To use AppScout to solve an **application performance** problem, you'll need considerable expertise in how the **application** uses the network as you **analyze** AppScout's reports. Because AppScout requires the presence of NetScout SNMP probes on the various...jpg S3's Trending Analysis Top Report identifies network traffic volumes and response times for **monitored applications**. caption for ResponseCenter.jpg Based on generic protocol types, ResponseCenter's History Graph provides a...

23/3,K/50 (Item 7 from file: 674)
DIALOG(R)File 674:Computer News Fulltext
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079550

Tracking the Web in real time

Andromedia's Aria Enterprise and net.Genesis' net.Analysis raise the bar for high-end Web traffic analysis but fall short when it comes to administration.

Byline: BRADLEY SHIMMIN

Journal: Network World Page Number: 57

Publication Date: November 22, 1999

Word Count: 3004 Line Count: 270

Text:

... they certainly can 't tell you anything specific about those users, such as their shopping **histories**, browsing habits or **information** needs. To truly understand your users and your e-business, not just your site, you...

... then funnel that traffic into a data warehouse, from which users can perform ad-hoc **queries** or run predefined reports. Eschewing flat-file log analysis techniques, these real-time traffic watchers...

... real-time data into a third-party multidimensional database. Through additional modules, such as the **Application Monitor**, Aria can also pull real-time data from sources such as Netscape Application Server and BroadVision 's One-to-One Commerce **application**. Net. **Analysis** comes with a network monitor and log file import utilities, which pull data in near...

... only drawback to Aria 's overall approach is that it doesn 't work well with **log** file **data**. With net.Analysis, when we lost data due to a miscommunication between the monitor and...

...from your secure sites not normally found within log files, such as page titles and **query** strings. The one feature that most differentiates these high-end Web analysis tools from their...

... databases, on the other hand, must generate multiple indexes before fulfilling many-to-many relationship **queries**. Net.Analysis running on an Oracle server rests between these two ends of the spectrum...net.Analysis blows the doors off Andromedia's product. The reason is simple: the net. Analysis reporter is a Windows **application** that plugs directly into a relational database, such as Oracle. With net.Analysis, each report...

...stemmed from its hourly delay in data delivery. Unlike Aria, which could generate ad-hoc **queries** on the fly, net.Analysis had to wait for an hourly infusion of data. This...

... results will be. This really throws a wrench into the works when you perform a **statistical** analysis of the resulting data, such as calculating a mean or standard deviation over 30...deflect Aria users looking for drill-down data away from the database, you must export **query** results to a delimited file or Web page and publish those results manually - a clearly ...

... application and data warehouse server, yet neither comes with the tools necessary to keep the **application** or server **running** smoothly. Both products are difficult to administer due to their reliance on interdependent yet distributed system processes. Both products use a similar architecture. A **monitor application** sniffs Web traffic at the source, storing that **information** in a temporary **log** file. A recorder application uploads the data to the database engine. Finally, a reporter application...

... recorder immediately wrote all pending data to disk, and its monitor continued to write Web **data** to a temporary **log** file on the target server. When we reconnected the two, the entire temporary log file...

23/3,K/51 (Item 8 from file: 674)
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079350

Best of the tests

Get the skinny on which products tested best this year.

Byline: by Ann Sullivan

Journal: Network World Page Number: 71

Publication Date: November 15, 1999

Word Count: 2716 Line Count: 262

Text:

... minimum of adjustments and often include Internet-based services such as mail and Web browsing. Check Point **Software**'s VPN-1 Appliance won the Blue Ribbon in our comparative review of all-in...

... doesn't mean you can sleep nights without worry. What if a breach occurs? Security **monitoring** and **scanning software** can provide the backup assurance you need by identifying server vulnerabilities and suspicious user activities... monitoring and design tools can help you improve network performance and predict the effect new **applications** will have on **performance**. For day-to-day **monitoring**, we tested **software** that watches the health and availability of networked devices, alerts you

to any malfunction and, in some cases, solves problems. Of the six programs we tested, MediaHouse **Software**'s Enterprise **Monitor** has the strongest monitoring features, and its notification options are plentiful. It can send outage...

... the ability to reboot a machine running Windows NT. You can get more sophisticated network **performance analysis** with Ganymede **Soft - ware**'s Chariot, a software tool for stress-testing network hardware and modeling the behavior of...

... link models to construct your network model accurately. Then IT DecisionGuru predicts network activity and **application performance** using a combination of packet-by-packet traffic analysis and mathematical equations, making it easier...

... solid 8.7. When high traffic threatens Web server's performance, load balancers distribute visitor **requests** to multiple Web servers based on traffic volume and server availability. Resonate's Central Dispatch...

... The powerful Log Analyzer is simple to use and doesn't require much attention. Schedulers **retrieve** log files, analyze **data**, and prepare and distribute reports. E-mail assistanceBogged down by e-mail? Three award-winning...

... as info@yourcompany.com, and replies to common questions. To ensure timely attention to customer **queries**, IMC can pull back a message if it sits in an agent's message queue... specific customer actions and responds with a variety of actions, including parsing the message text, **running** an external **program**, saving the customer's data to a file or database, or sending an e-mail...

... s KeyServer, a sophisticated program in a small package. To help you stay legal, KeyServer **tracks** user **applications**, ensures that each copy has a valid license and stops people from **running** inappropriate or unlicensed **software**. It's a breeze to install, and its light server requirements are a welcome bonus...

? t23/3,k/56

23/3,K/56 (Item 13 from file: 674)
DIALOG(R)File 674:Computer News Fulltext
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070772

Web site sentinels

These three Web management tools have different styles, but one proves best at keeping your site running smoothly: WebTrends' Enterprise Suite 3.0.

Byline: Thomas Powell

Journal: Network World Page Number: 55

Publication Date: December 07, 1998

Word Count: 2166 Line Count: 199

Text:

... pages. The product also addresses recovery: Alarms can trigger as many as three actions, including **running** a **program**, restarting a service or rebooting a system. In general, however, we found Enterprise Suite 3.0's monitoring features pretty basic. For example, the **software** doesn't allow you to **monitor** server performance, network utilization or the contents of a file. These checks are crucial if...

... The feature looks primarily at file size and time stamps; more complex

integrity checkers can **search** for a particular string in the contents of a file. This distinction is important...

... executive summaries showing site usage patterns to advanced reports that include banner ad tracking and **search** engine phrase monitoring. You can save the fully customizable reports in a variety of formats, including HTML, Microsoft Word, Excel and comma-delimited or ASCII text. A scheduler can automatically **retrieve** logs from a disk, by File Transfer Protocol (FTP) or even HTTP. Once the results...remote system, or e-mail a report to interested parties. While log files show **historical** site information, you can set the program to constantly refresh the **log information** for your reports. That feature, along with this version's improved processing speed, makes near...

... groupings in internal log file reports. Focus on site statusFor Web site alerting and **monitoring**, Freshwater **Software**'s SiteScope is hard to beat. The **program** runs on Windows NT, Irix and Solaris, and consists of a Java server application accessed via...

... services such as disk space availability, memory use and CPU utilization; and you can **request** that warnings be issued when thresholds are reached. Additionally, SiteScope monitors log files for error...

... WebChallenger passively watches traffic on its network segment. It can monitor bandwidth usage and page **requests** sent to any Web server on the network, regardless of operating system or server version...

? t23/3,k/58

23/3,K/58 (Item 15 from file: 674)
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069559

Not your average test tools

Byline: By Charles Bruno and Greg Kilmartin, The Tolly Group

Journal: Network World Page Number: 91

Publication Date: October 19, 1998

Word Count: 2179 Line Count: 203

Text:

... in the latest test tools. Protocol AnalyzersFor years, protocol analyzers have been used to capture **trace information** and network statistics that are later interpreted by network technicians. The use of protocol analyzers...

... strength is its diagnostic capabilities, Shomiti's Surveyor stands out for the sheer load of **statistical** data it can accumulate. Surveyor is an expert analysis system that collects the typical **trace** file data captured by protocol analyzers, then probes deep into network traffic flows to unearth a level...

... the past 3 seconds, Surveyor can tell you; SNMP-based alerts cannot. Surveyor's extensive **statistical** views break down the type of protocols passing in a datastream as well as the...)

... interface - and thus any NDIS-based adapter - to probe a network and gather performance and **statistical** information. Observer can be configured to operate in distributed mode, which means that you set...that measures the throughput and monitors the connectivity of data services guaranteed by SLAs. We **examined** a pair of products: Ganymede **Software**'s Pegasus and Network Tools' Chisel. Pegasus is a complete SLA testing tool that examines

...is a more general-purpose test tool that contains some features suitable for measuring SLA **performance**. Pegasus is **software** that **runs** on a dedicated server, using its own SNMP agent and various Management